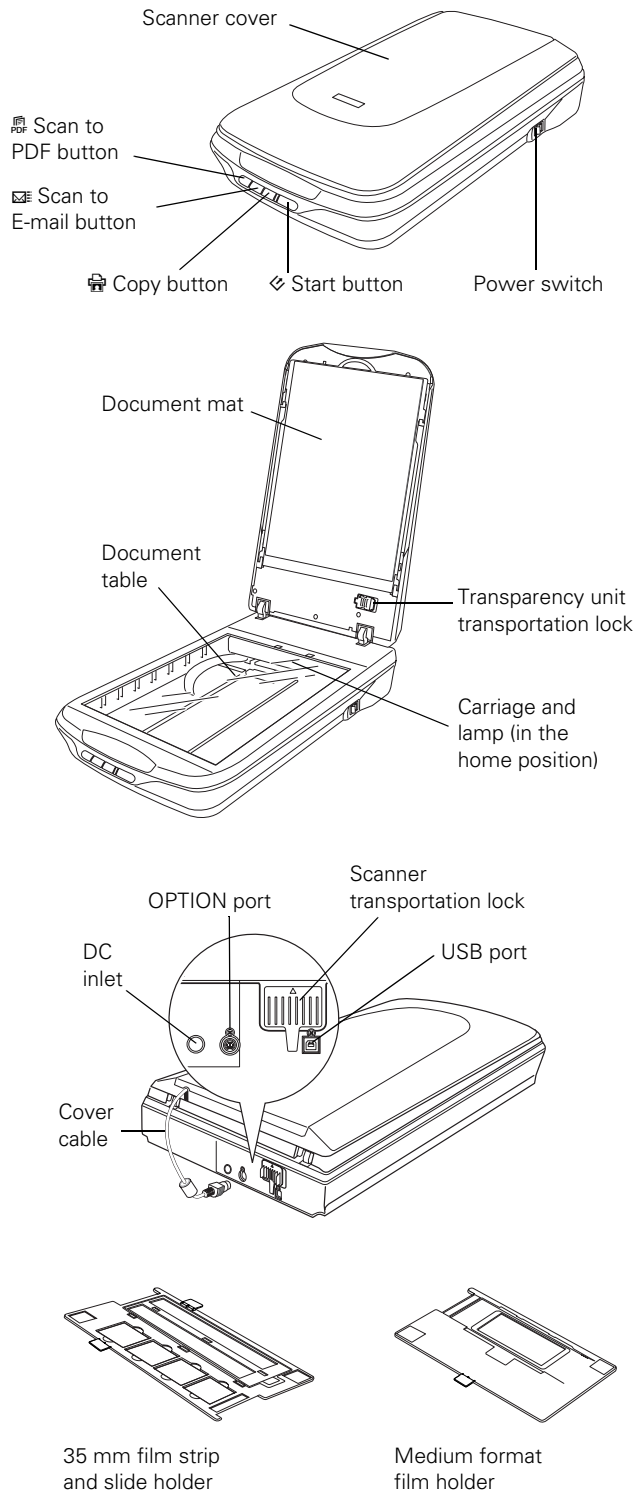
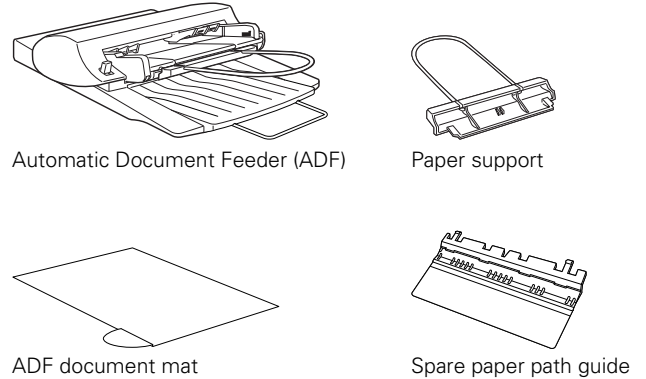


## Scanner Parts



## Option

The Automatic Document Feeder (B12B8133911) allows you to automatically load multiple-page documents into your scanner. See the on-screen *User's Guide* for instructions on installing and using the optional Automatic Document Feeder.



## Scanner Specifications

### General

Scanner type	Flatbed color
Photoelectric device	Color CCD line sensor
Effective pixels	40,800 × 56,160 pixels (maximum at 4800 dpi)
Document size	Documents or photos: 8.5 × 11.7 inches (216 × 297 mm) US letter or A4 size
	Film or slides: 2.7 x 9.3 inches (68 × 236 mm) (Two 35 mm film strips [6 frames each], four 35 mm slides, or one medium format 6 x 12 cm film frame)
Scanning resolution	4800 dpi (main scan) 9600 dpi with Micro Step (sub scan)
Output resolution	50 to 6400, 9600, and 12800 dpi (50 to 6400 dpi in 1 dpi increments)
Scanning speed	Approximately 16.9 msec per line at 4800 dpi Approximately 3.8 msec per line at 600 dpi

Image data	16 bits per pixel per color internal 16 bits per pixel per color external (maximum)
Interface	One USB 2.0 Hi-speed or USB 1.1 port
Light source	White cold cathode fluorescent lamp IR LED

## Mechanical

Dimensions	Width: 10.7 inches (272 mm) Depth: 18.7 inches (475 mm) Height: 4.4 inches (113 mm)
Weight	Approx. 8.8 lb (4.0 kg)

## Electrical

### Note:

Check the label on the AC adapter or on the back of the scanner for voltage information.

### Scanner

Input voltage	DC 24 to 26.4 V
Rated voltage	DC 24 V
Rated current	1.1 A
Power consumption	20 W operating (22.5 W with optional ADF installed) 13.5 W stand-by mode (13.5 W with optional ADF installed) 3.8 W sleep mode

### AC Adapter

Rated input voltage	AC 100 to 120 V
Rated input current	0.7 A
Rated frequency	50 to 60 Hz
Rated output voltage	DC 24.0 to 26.4 V
Rated output current	1.1 A

## Environmental

Temperature	Operating	41 to 95 °F (5 to 35 °C) (when scanning with optional ADF: 50 to 90 °F (10 to 32 °C)
	Storage	-13 to 140 °F (-25 to 60 °C)
Humidity	Operating	10 to 80%, without condensation (when scanning with optional ADF: 20 to 80%)
	Storage	10 to 85%, without condensation
Operating conditions		Ordinary office or home conditions. Avoid operating the scanner in direct sunlight, near a strong light source, or in extremely dusty conditions.

## Interfaces

### USB Interface

Interface type	Universal Serial Bus Specification Revision 2.0
Electrical standard	Full Speed mode (12 Mbits per second) and Hi-Speed mode (480 Mbits per second) of Universal Serial Bus Specification Revision 2.0.
Connector type	One Type B port

### OPTION Interface

Connector type	Mini DIN 8pin
Output voltage	DC 24.0 to 26.4 V DC 4.75 to 5.25 V
Supported option	Automatic Document Feeder

## Standards and Approvals

### Scanner

EMC	FCC Part 15 Subpart B Class B CAN/CSA-CEI/IEC CISPR 22 Class B
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### AC Adapter

Safety	UL1950 CSA C22.2 No. 950
EMC	FCC Part 15 Subpart B Class B CSA C108.8 Class B

## Optional Automatic Document Feeder Specifications

### General

Product code	B12B8133911
Paper input	Face-up loading
Paper output	Face-down ejection
Paper capacity	30 sheets of 17 lb (55 g/m <sup>2</sup> ) paper Maximum total thickness under 0.2 inches (6 mm)
Paper types	Bond paper, fine-quality paper, check paper, and recycled paper

### Electrical

Rated voltage	DC 24 V, DC 5 V
Input voltage	DC 24 V to DC 26.4 V DC 5 V $\pm$ 5%
Input current	24 V: 0.8 A 5 V: 0.2 A

### Environmental

Temperature	Operating	50 to 90 °F (10 to 32 °C)
	Storage	-4 to 140 °F (-20 to 60 °C)
Humidity	Operating	20 to 80%, without condensation
	Storage	10 to 85%, without condensation

### Reliability

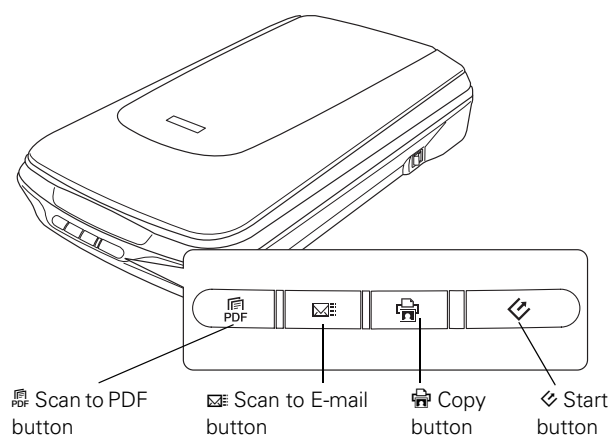
Total sheets (Load/eject MCBF)	20,000
Total transparencies (Load/eject MCBF)	10,000
Movement cycles (Hinge MCBF)	12,000

### Mechanical

Dimensions	Width: 12.6 inches (319 mm)
	Depth: 21.2 inches (539 mm)
	Height: 5.4 inches (137 mm)
Weight	Approx. 5.3 lb (2.4 kg)

### Using the Scanner Buttons

See the on-screen *User's Guide* for instructions on using these scanner buttons:



- ❑ To start a basic scan, press the Start button on the scanner. Your computer automatically starts EPSON Scan in Full Auto Mode (or the mode you used last). From EPSON Scan, you can select a scanning mode, and then scan and save your image to a file on your computer.
- ❑ To start a scan and save it as a PDF file on your computer, press the Scan to PDF button. EPSON Scan starts and automatically selects PDF as the file type.
- ❑ If you want to use the scanner as a copier and automatically scan and print your image, you can press the Copy button. The EPSON Copy Utility starts automatically.
- ❑ If you want to scan an image and open your e-mail program so you can attach it to an e-mail message, you can press the Scan to E-mail button.

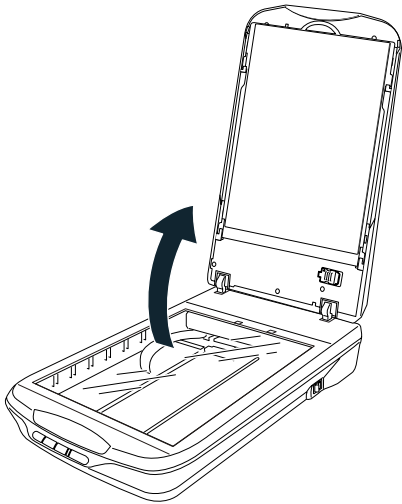
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## Scanning a Document or Photo

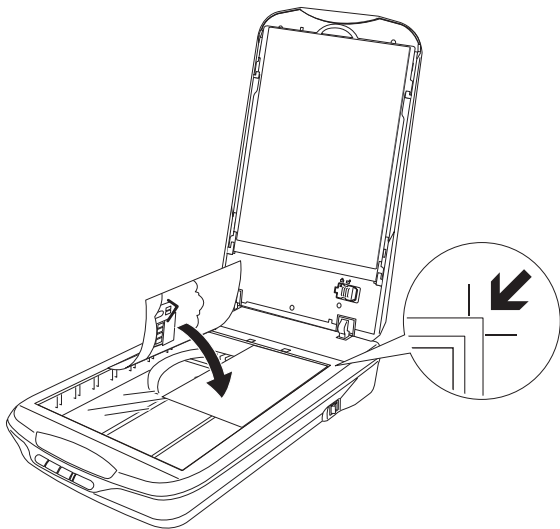
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1. Open the scanner cover.

Make sure the document mat is installed inside the cover. If it is not installed, see “Replacing the Document Mat” on page 7 for instructions.



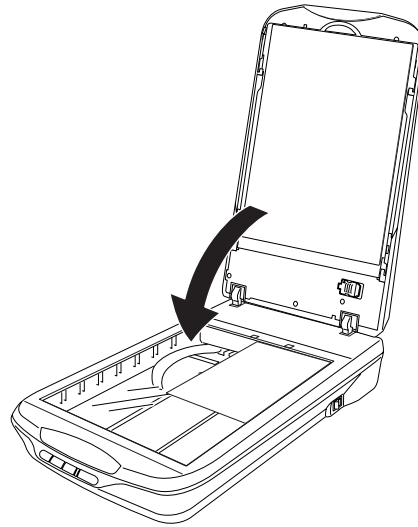
2. Place your document or photo on the document table, face down on the glass. Make sure the top of the document or photo is against the upper right corner of the document table.



3. If you are scanning multiple photos at once, position each photo at least 20 mm (0.8 inches) apart from the others.

**Note:** If you are scanning large or thick documents, you can remove the scanner cover.

4. Close the scanner cover gently so that your original does not move.



**Note:** Always keep the document table clean.

Do not leave photos on the document table for an extended period of time as they may stick to the glass.

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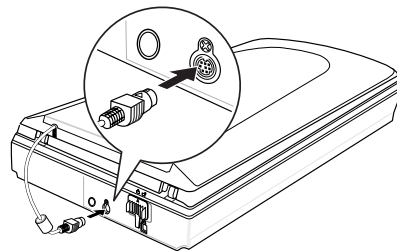
## Scanning Film and Slides

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### Removing the Document Mat

To scan film strips or slides, you need to remove the document mat from the scanner cover. This uncovers the transparency unit so your scanner can use it to scan your film or slides.

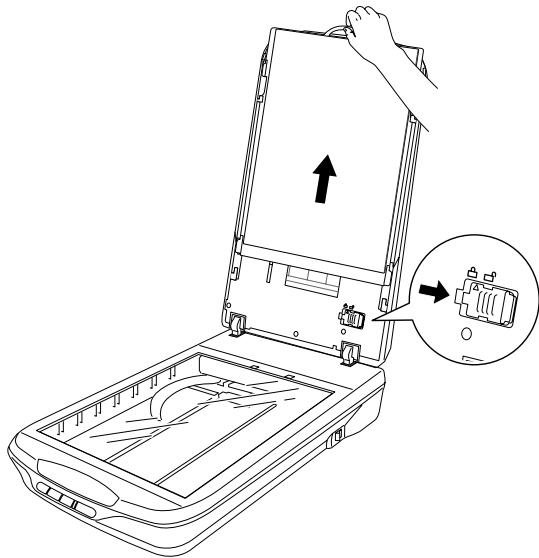
1. Make sure the cover cable is connected to the scanner's OPTION port.



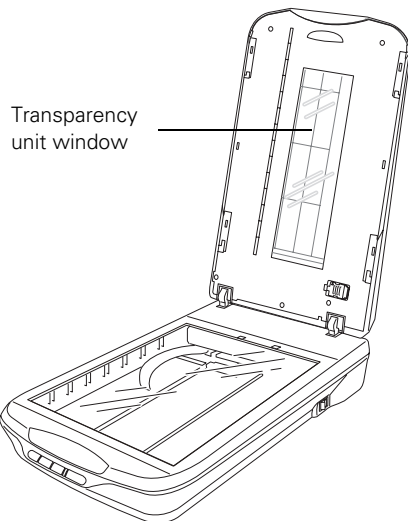
**Note:**

Before connecting or disconnecting the cover cable, turn off the scanner using its power switch.

- Open the scanner cover and gently slide up the document mat to remove it. Also make sure the transparency unit transportation lock is unlocked.



- Use a soft cloth to wipe the transparency unit window and the document table before placing your film or slides.



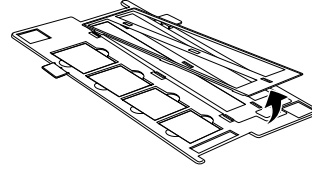
To place film for scanning, see “Placing Film in the Holder” below.

To place slides for scanning, see “Placing Slides in the Holder” on page 6.

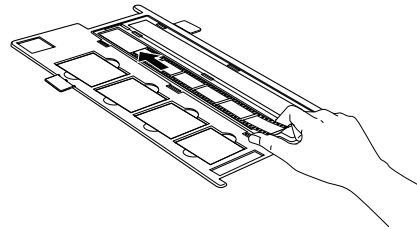
## Placing Film in the Holder

### Placing 35 mm Film Strips

- Open the film strip cover(s) on the film holder.



- Slide one or two film strips all the way into the film holder with the shiny base side facing down. Your images and any wording on the film strips should appear backwards on the side that faces up.

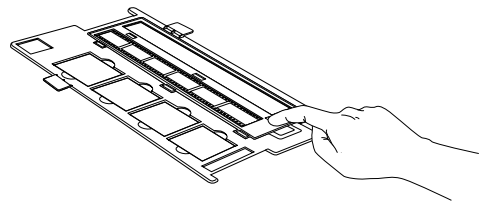


**Note:** Hold the edge of the film gently or use gloves to touch the film; otherwise you may damage the film.

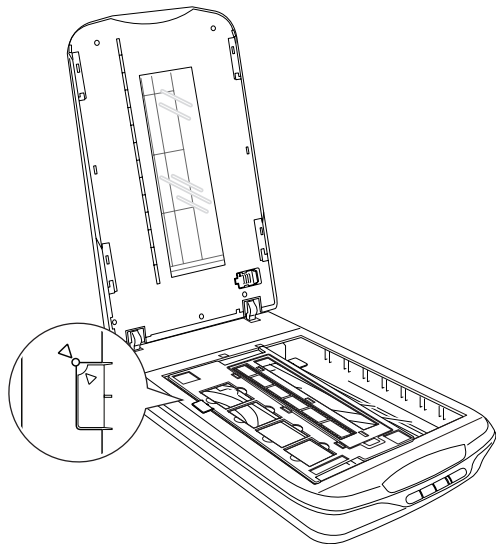
Make sure the white stickers on the back of the film holder and the areas around them are not scratched, dusty, or covered in any way. If the areas are obscured, the scanner may have trouble recognizing your film in Full Auto Mode.

Do not cover any of the tiny holes in the film holder or the scanner may have trouble recognizing which film holder you are using.

- Close the covers over the film and press them down until they click. Then press down on all the edges of the covers to secure them.



- Place the film holder on the document table so that it is aligned with the upper left corner. Make sure the tab labelled “A” on the film holder fits into the area labelled “A” on the scanner.

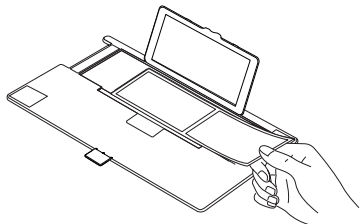


- Make sure you removed the document mat. See “Removing the Document Mat” on page 4.
- Close the scanner cover.

When you are finished scanning film, be sure to replace the document mat before scanning documents or photos. See “Replacing the Document Mat” on page 7.

### Placing Medium Format Film

- Open the cover on the medium format film holder.
- Slide one medium format film image into the film holder with the shiny base side facing down. Your image and any wording on the film should appear backwards on the side that faces up. Make sure the entire image frame is positioned in the film holder opening.

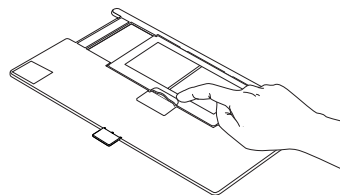


**Note:**

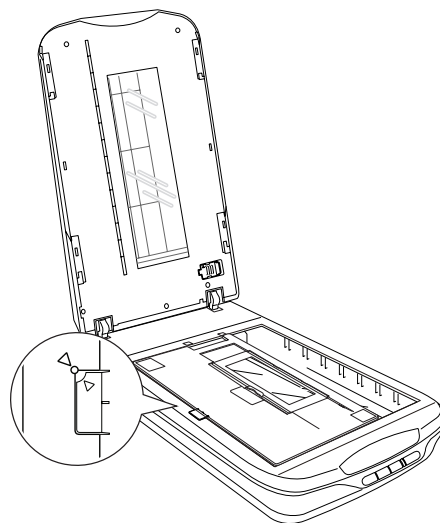
Hold the edge of the film gently or use gloves to touch the film; otherwise you may damage the film.

Do not cover any of the tiny holes in the film holder or the scanner may have trouble recognizing which film holder you are using.

- Close the cover over the film and press it down until it clicks. Then press down on all the edges of the cover to secure it.



- Place the film holder on the document table so that it is aligned with the upper left corner. Make sure the tab labelled “B” on the film holder fits into the area labelled “B” on the scanner.



- Make sure you removed the document mat. See “Removing the Document Mat” on page 4.
- Close the scanner cover.

**Note:**

You cannot use Full Auto Mode to scan medium format film.

When you are finished scanning film, be sure to replace the document mat before scanning documents or photos. See “Replacing the Document Mat” on page 7.

### Placing Slides in the Holder

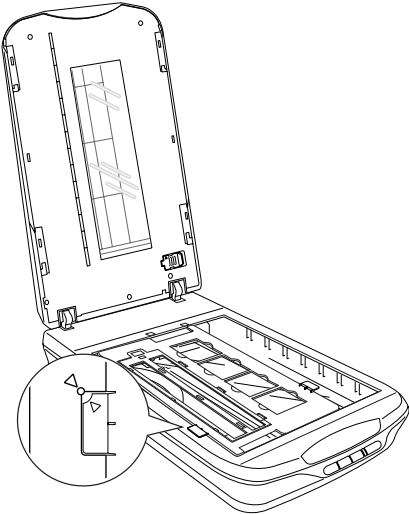
You can scan up to four 35 mm slides at a time using the slide portion of the film holder.

**Note:**

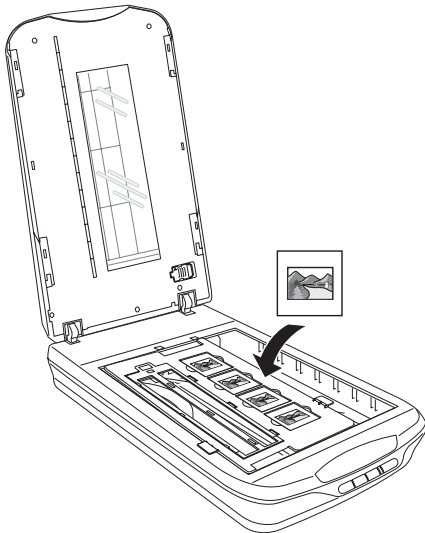
You cannot scan negative slides.

Make sure the white stickers on the back on the film holder and the areas around them are not scratched, dusty, or covered in any way. If the areas are obscured, the scanner may have trouble recognizing your slides in Full Auto Mode.

1. Place the film holder on the document table so that it is aligned with the upper left corner. Make sure the tab labelled “C” on the film holder fits into the area labelled “C” on the scanner.



2. Place up to four slides in the 35 mm slide holder with the shiny base side facing down. Your image should appear backwards on the side that faces up. The top of your images should face the back of the scanner.

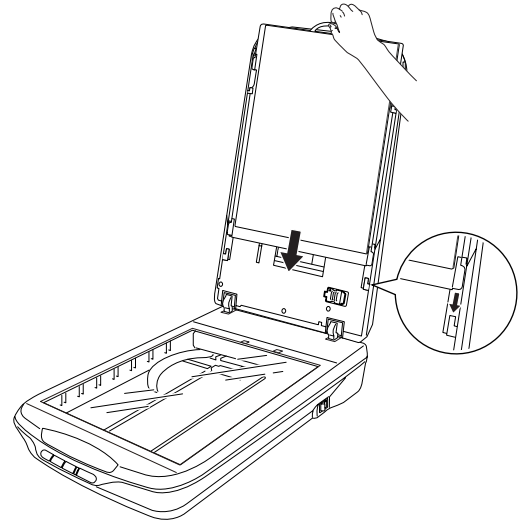


3. Make sure you removed the document mat. See “Removing the Document Mat” on page 4.
4. Close the scanner cover.

When you are finished scanning slides, be sure to replace the document mat before scanning documents or photos, as described below.

## Replacing the Document Mat

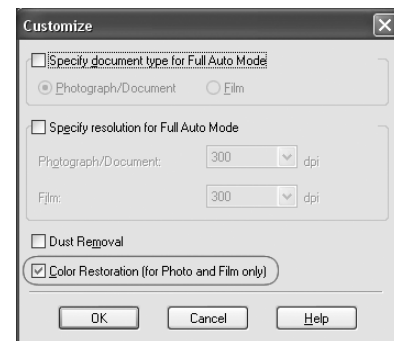
Replace the document mat by sliding it into the notches in the scanner cover. Make sure the white surface faces outwards.



## Scanning and Restoring Photos

Using the Color Restoration feature in EPSON Scan, you can transform old, faded, or badly exposed photos into ones with true-to-life color and sharpness. You can restore printed photos, negative film, or slides automatically as you scan them.

You can use Color Restoration in EPSON Scan’s Full Auto, Home, or Professional Mode. For detailed steps, see the on-screen *User’s Guide*.



Full Auto Mode



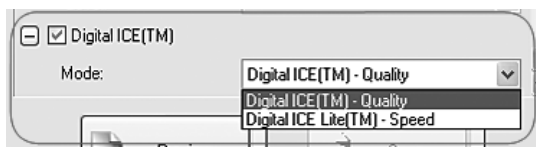
Home and Professional Mode

## Removing Dust and Scratch Marks From Film or Slides

Using the Dust Removal feature in EPSON Scan's Full Auto or Professional Mode, you can virtually "clean" the dust marks from film or slides as you scan them.



Your scanner and its EPSON Scan software are equipped with the Digital ICE™ and Digital ICE Lite™ features that remove stubborn dust or scratch marks from color film or slides.



Digital ICE can remove dust marks that the Dust Removal feature cannot. However, it takes longer to scan using Digital ICE and also uses more of your system resources. It is best to try removing dust marks using Dust Removal before using Digital ICE.

For detailed steps on using these features, see the on-screen *User's Guide*.

## Reading the Scanner Light

The scanner light indicates the scanner status.

Color	Indicator Status	Meaning
Green	On	Ready to scan images.
	Flashing	Initializing or scanning.
Red	Flashing	An error has occurred.

If an error occurs, the scanner stops operating and the scanner light flashes red. This indicates one of the following problems:

- ❑ The scanner is not connected to your computer properly or your software is not fully installed. See the *Start Here* sheet that came with your scanner for instructions on installing the scanner software and connecting the scanner to your computer.
- ❑ The scanner and/or the transparency unit transportation lock is locked. Slide the lock to the unlock position.

After trying these solutions, turn off the scanner using its power switch, then turn it back on. If the scanner light is still flashing:

- ❑ The scanner may be malfunctioning.
- ❑ The scanner lamp may need to be replaced (not a user-replaceable part).
- ❑ The connected optional equipment may be malfunctioning.

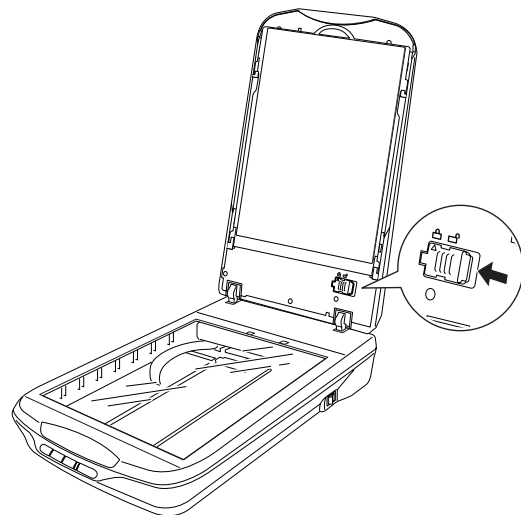
## Transporting the Scanner

Before transporting the scanner for a long distance or storing it for an extended period of time, you need to lock the scanner's carriage and transparency unit to prevent damage.

1. Plug in the scanner, connect it to your computer, turn on the scanner using its power switch, and wait until the carriage moves to the home position (near the cover hinge). While the scanner light is green, turn off the scanner using its power switch.

**Note:** If the optional ADF is installed, disconnect its cable and remove it from the scanner. Place the scanner cover on the scanner, but do not connect the cover cable.

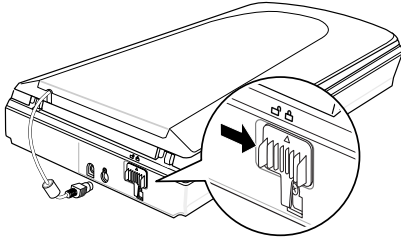
2. Open the scanner cover and slide the transparency unit transportation lock to the locked position. Then close the scanner cover.



3. If the cover cable is attached, disconnect it.



4. On the back of the scanner, slide the transportation lock to the locked position to secure the scanner carriage.



5. Attach the protective materials, then repack the scanner in its original box or a similar box that fits the scanner snugly.

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## Related Documentation

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CPD-19823	Epson Perfection 4490 Photo <i>Start Here</i> sheet
CPD-19824	Epson Perfection 4490 Photo <i>Notices</i> booklet
CPD-19825	Epson Perfection 4490 Photo Scanner Software CD-ROM
—	Epson Perfection 4490 Photo <i>User's Guide</i> (HTML on CD-ROM)

