



# Expression 12000XL

# User's Guide

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# About This Manual

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## Marks and Symbols

**Caution:**

*Instructions that must be followed carefully to avoid bodily injury.*

**Important:**

*Instructions that must be observed to avoid damage to your equipment.*

**Note:**

*Provides complementary and reference information.*

**Related Information**

➡ Links to related sections.

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## Descriptions Used in this Manual

- ❑ Screenshots for the applications are from Windows 10 or Mac OS X v10.10.x. The content displayed on the screens varies depending on the model and situation.
- ❑ Illustrations used in this manual are for reference only. Although they may differ slightly from the actual product, the operating methods are the same.

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## Operating System References

### Windows

In this manual, terms such as "Windows 10", "Windows 8.1", "Windows 8", or "Windows 7" refer to the following operating systems. Additionally, "Windows" is used to refer to all versions.

- ☐ Microsoft® Windows® 10 operating system
- ☐ Microsoft® Windows® 8.1 operating system
- ☐ Microsoft® Windows® 8 operating system
- ☐ Microsoft® Windows® 7 operating system

### Mac

In this manual, "macOS v10.12.x" refers to macOS Sierra, "Mac OS X v10.11.x" refers to OS X El Capitan, "Mac OS X v10.10.x" refers to OS X Yosemite, "Mac OS X v10.9.x" refers to OS X Mavericks, and "Mac OS X v10.8.x" refers to OS X Mountain Lion. Additionally, "Mac" is used to refer to "macOS v10.12.x", "Mac OS X v10.11.x", "Mac OS X v10.10.x", "Mac OS X v10.9.x", "Mac OS X v10.8.x", "Mac OS X v10.7.x", and "Mac OS X v10.6.8".

# Important Instructions

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## Safety Instructions

Read all these instructions, and follow all warnings and instructions marked on the product.

- ☐ Some of the symbols used on your product are to ensure safety and proper use of the product. Visit the following Web site to learn the meaning of the symbols.  
<http://support.epson.net/symbols>
- ☐ Place the product on a flat, stable surface that extends beyond the base of the product in all directions. If you place the product by the wall, leave more than 10 cm between the back of the product and the wall. The product will not operate properly if it is tilted at an angle.
- ☐ Avoid places subject to dust, shocks, or vibrations.
- ☐ Place the product close enough to the computer for the interface cable to reach it easily. Do not place or store the product or the power cord outdoors, near excessive dirt or dust, water, heat sources, or in locations subject to shocks, vibrations, high temperature or humidity, direct sunlight, strong light sources, or rapid changes in temperature or humidity.
- ☐ Do not use with wet hands.
- ☐ Place the product near an electrical outlet where the power cord plug can be easily unplugged.
- ☐ The power cord should be placed to avoid abrasions, cuts, fraying, crimping, and kinking. Do not place objects on top of the cord and do not allow the power cord to be stepped on or run over. Be particularly careful to keep the cord straight at the end.
- ☐ Use only the power cord supplied with the product and do not use the cord with any other equipment. Use of other cords with this product or the use of the supplied power cord with other equipment may result in fire or electric shock.
- ☐ Use only the type of power source indicated on the product's label, and always supply power directly from a standard domestic electrical outlet.
- ☐ When connecting this product to a computer or other device with a cable, ensure the correct orientation of the connectors. Each connector has only one correct orientation. Inserting a connector in the wrong orientation may damage both devices connected by the cable.
- ☐ Avoid using outlets on the same circuit as photocopiers or air control systems that regularly switch on and off.
- ☐ If you use an extension cord with the product, make sure the total ampere rating of the devices plugged into the extension cord does not exceed the cord's ampere rating. Also, make sure the total ampere rating of all devices plugged into the wall outlet does not exceed the wall outlet's ampere rating.
- ☐ Never disassemble, modify, or attempt to repair the product, or product option by yourself except as specifically explained in the product's guides.
- ☐ Do not insert objects into any opening as they may touch dangerous voltage points or short out parts. Beware of electrical shock hazards.
- ☐ If damage occurs to the plug, replace the cord set or consult a qualified electrician. If there are fuses in the plug, make sure you replace them with fuses of the correct size and rating.
- ☐ Unplug the product and the power cord, and refer servicing to qualified service personnel under the following conditions: The power cord or plug is damaged; liquid has entered the product; the product or the power cord has been dropped or the case has been damaged; the product or the power cord does not operate normally or exhibits a distinct change in performance. (Do not adjust controls that are not covered by the operating instructions.)



## Important Instructions

- ☐ Unplug the product and the power cord before cleaning. Clean with a damp cloth only. Do not use liquid or aerosol cleaners.
- ☐ If you are not going to use the product or options for a long period, be sure to unplug the power cord from the electrical outlet.
- ☐ After replacing consumable parts, dispose of them correctly following the rules of your local authority. Do not disassemble them.
- ☐ Because the product is heavy, one person should never attempt to lift or carry it alone. Two people should lift and carry the product.
- ☐ Do not place heavy objects on the scanner glass and do not press the glass with too much force.

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## Restrictions on Copying

Observe the following restrictions to ensure the responsible and legal use of your product.

Copying of the following items is prohibited by law:

- ☐ Bank bills, coins, government-issued marketable securities, government bond securities, and municipal securities
- ☐ Unused postage stamps, pre-stamped postcards, and other official postal items bearing valid postage
- ☐ Government-issued revenue stamps, and securities issued according to legal procedure

Exercise caution when copying the following items:

- ☐ Private marketable securities (stock certificates, negotiable notes, checks, etc.), monthly passes, concession tickets, etc.
- ☐ Passports, driver's licenses, warrants of fitness, road passes, food stamps, tickets, etc.

**Note:**

*Copying these items may also be prohibited by law.*

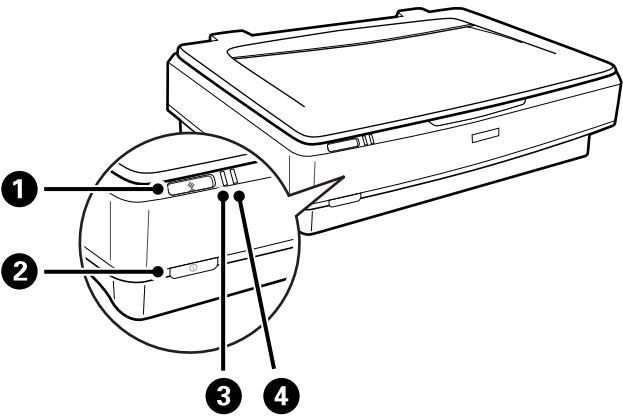
Responsible use of copyrighted materials:



Products can be misused by improperly copying copyrighted materials. Unless acting on the advice of a knowledgeable attorney, be responsible and respectful by obtaining the permission of the copyright holder before copying published material.

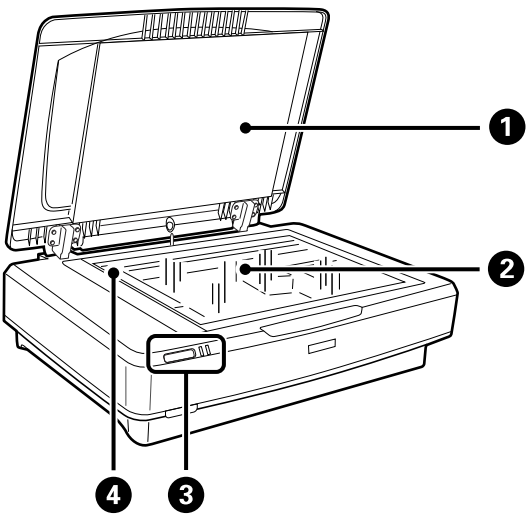
# Scanner Basics

## Part Names

**Note:**  
Check all of the items that came with your product.



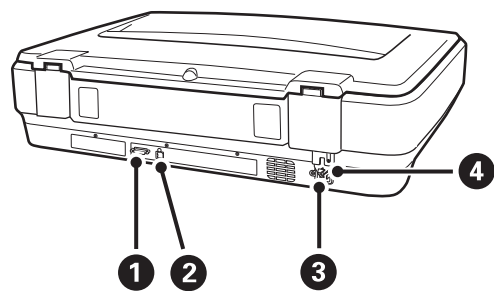
1	 start button
2	 power button
3	Ready light
4	Error light



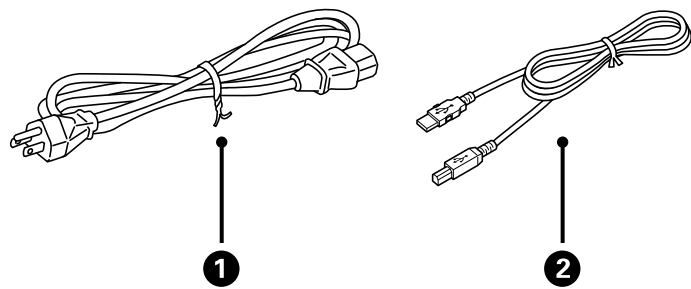
1	Document cover
2	Scanner glass
3	Control panel

Scanner Basics

4	Carriage (in the scanner glass)
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1	Option connector
2	USB port
3	AC inlet
4	Transportation lock lever



1	Power cord
2	USB cable

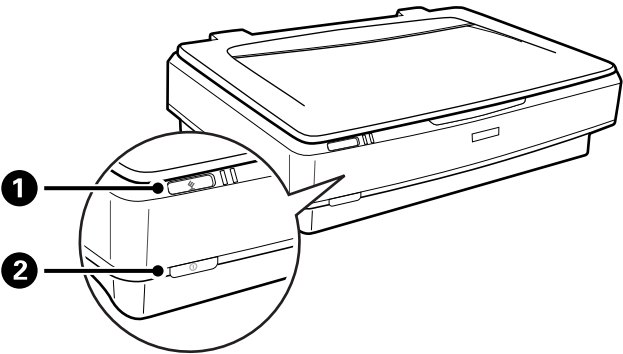
# Buttons and Lights



**Buttons**

The product has two buttons for scanning operations.

Scanner Basics

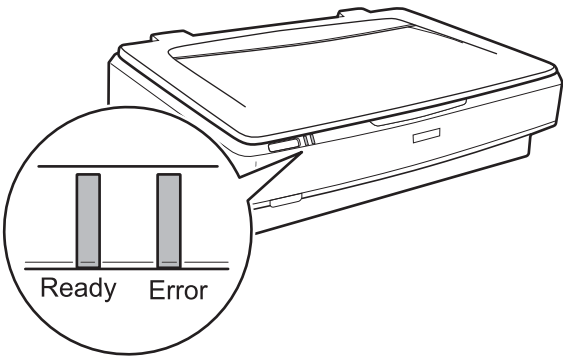
Before using the product buttons, make sure you have installed your scanning software.



1	 button	Starts scanning.
2	 button	Turns the product on if pressed once. Press again to turn the product off.

Lights

The status light indicates whether the product is operating normally.



Light	Indicator Status	Meaning
Ready	On	Ready to scan images.  If you cannot scan images, an error may have occurred. Make sure the optional Transparency Unit is completely closed.
	Flashing	Initializing or scanning.
Ready, Error	On	An error has occurred.
	Flashing	An error has occurred.
	Off	The product is off.
Error	Flashing	An error has occurred.

**Related Information**

- ➔ [“Scanning Using a Scanner Button” on page 26](#)
- ➔ [“Scanner Lights Indicate an Error” on page 55](#)

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## Information on Applications

This section introduces the software products available for your scanner. The latest software can be installed at the Epson Web site.

### Epson Scan 2

Epson Scan 2 is a driver for controlling your scanner, enabling a variety of scan settings. This also allows you to start either as a standalone application or by using TWAIN-compliant application software.

See the Epson Scan 2 help for details on using the application.

**Related Information**

- ➔ [“Scanning Using Epson Scan 2” on page 18](#)

### EPSON Software Updater

EPSON Software Updater is an application that checks for new or updated applications on the internet and installs them.

**Related Information**

- ➔ [“Updating Applications” on page 53](#)

# Placing Originals on the Product



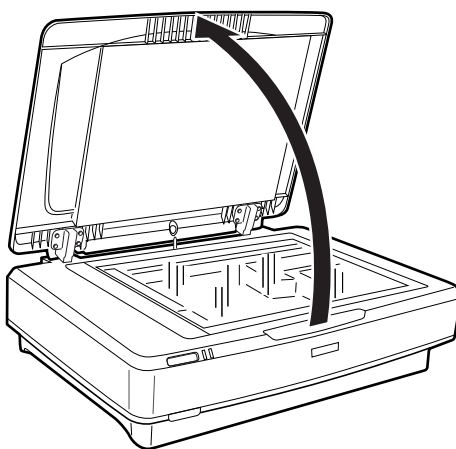
**Important:**

*Do not place heavy objects on the scanner glass and do not press the glass with too much force.*

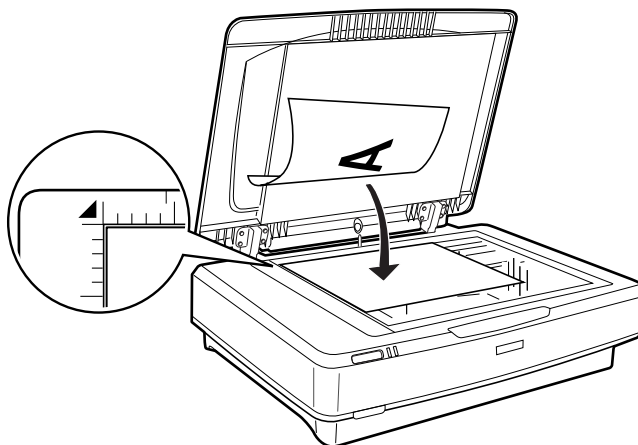
---

## Placing Originals

1. Open the document cover.



2. Place your original face down on the scanner glass making sure the top corner of the side you want to scan is aligned with the ▼ mark.

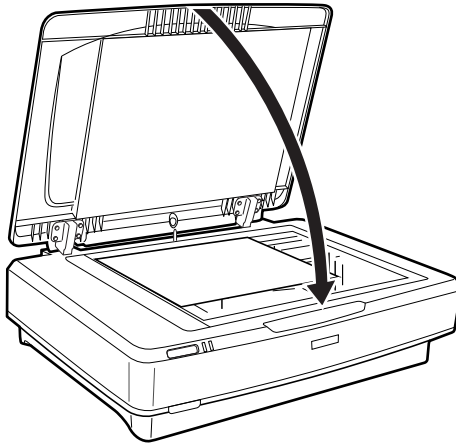


**Note:**

*If you are scanning multiple originals at once, position each original at least 20 mm (0.8 inch) apart from the others.*

## Placing Originals on the Product

3. Close the document cover gently so that your original does not move.



**Note:**

- ❑ Always keep the scanner glass clean.
- ❑ Do not leave originals on the scanner glass for an extended period of time as they may stick to the glass.

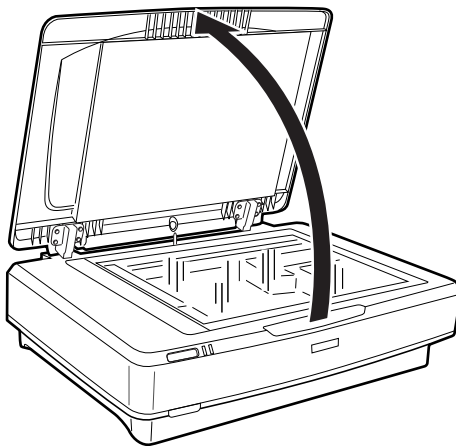
### Related Information

➔ [“Basic Scanning” on page 18](#)

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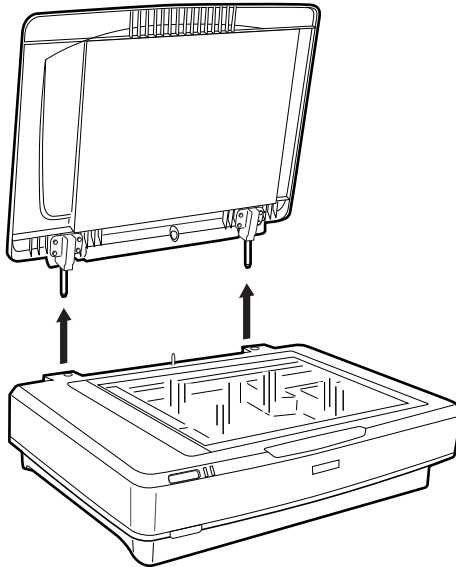
## Placing Large or Thick Originals

1. Open the document cover.



## Placing Originals on the Product

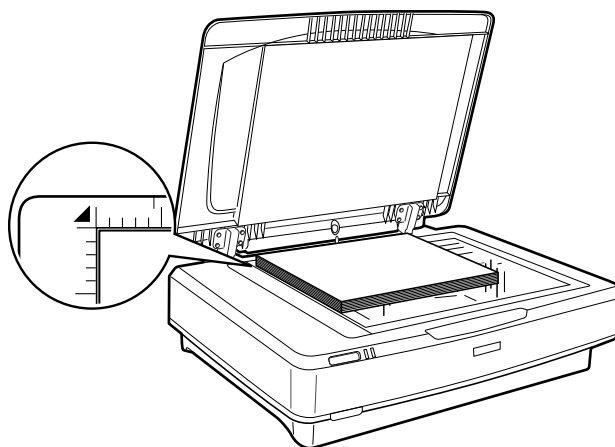
If the size of the original exceeds the size of the document cover, you can lift the document cover straight up and remove it to make it easier to align the original. When you have finished scanning, replace the document cover in the reverse order that you removed it.



**! Important:**

- ☐ Before removing the document cover, make sure you raise it to the upright position to prevent the hinges from snapping back on the springs.
- ☐ Do not force the cover off the scanner; otherwise, the cover may be damaged.

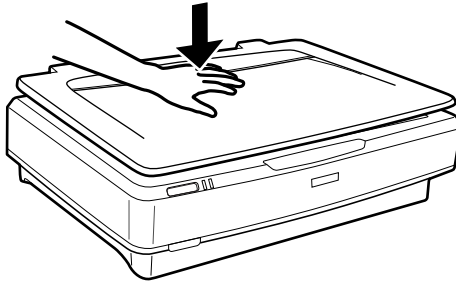
2. Place a large or thick original face-down on the scanner glass. Make sure the top corner of the original is aligned with the ▼ mark.





## Placing Originals on the Product

3. Close the document cover and hold it down firmly as you scan.



**Note:**

- ❑ When scanning without the document cover, gently press down on your original to flatten it.
- ❑ If your original is very thick or curled at the edges, cover the edges with paper to block external light as you scan.

### Related Information

➡ [“Basic Scanning” on page 18](#)

# Basic Scanning

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## Scanning Using Epson Scan 2

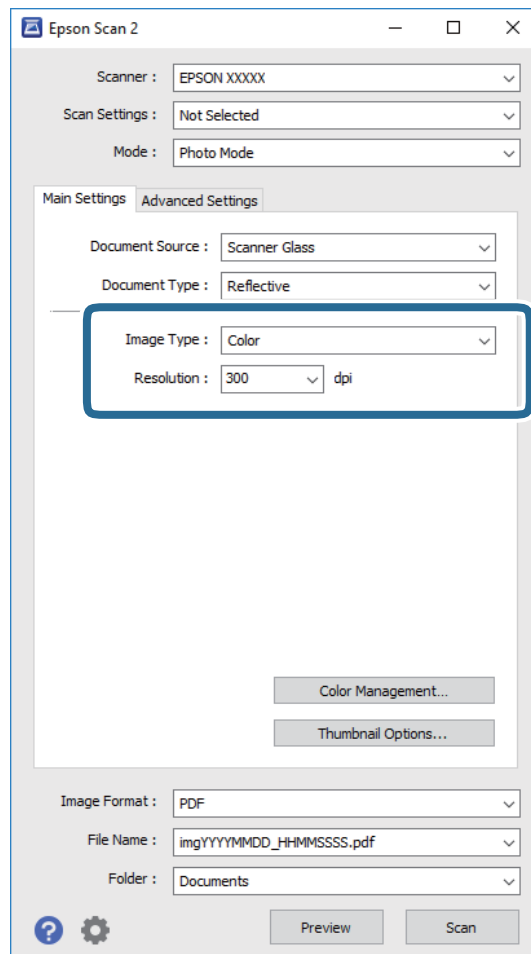
### Scanning Photos or Pictures (Photo Mode)

Using **Photo Mode** in Epson Scan 2, you can scan the originals using a wide variety of image adjustment features that are suitable for photos or pictures.

1. Place the originals.  
When placing multiple originals on the scanner glass, you can scan them all at the same time. Make sure there is a gap of at least 20 mm (0.8 in.) between the originals.
2. Start Epson Scan 2.
  - ☐ Windows 10  
Click the start button, and then select **All apps > EPSON > Epson Scan 2**.
  - ☐ Windows 8.1/Windows 8  
Enter the application name in the search charm, and then select the displayed icon.
  - ☐ Windows 7  
Click the start button, and select **All Programs** or **Programs > EPSON > Epson Scan 2 > Epson Scan 2**.
  - ☐ Mac  
Select **Go > Applications > Epson Software > Epson Scan 2**.
3. Select **Photo Mode** from the **Mode** list.

## Basic Scanning

4. Make the following settings on the **Main Settings** tab.



❑ **Image Type:** Select the color for saving the scanned image.

❑ **Resolution:** Select the resolution.

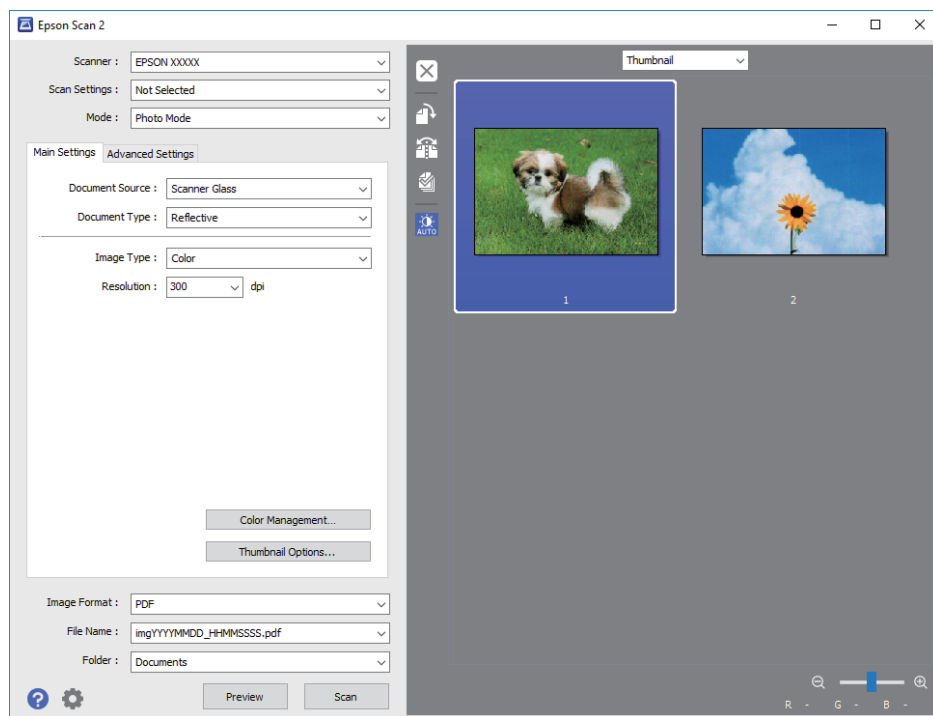
**Note:**

When scanning films using the Transparency Unit, set the **Document Source** and **Document Type** as well.

## Basic Scanning

5. Click **Preview**.

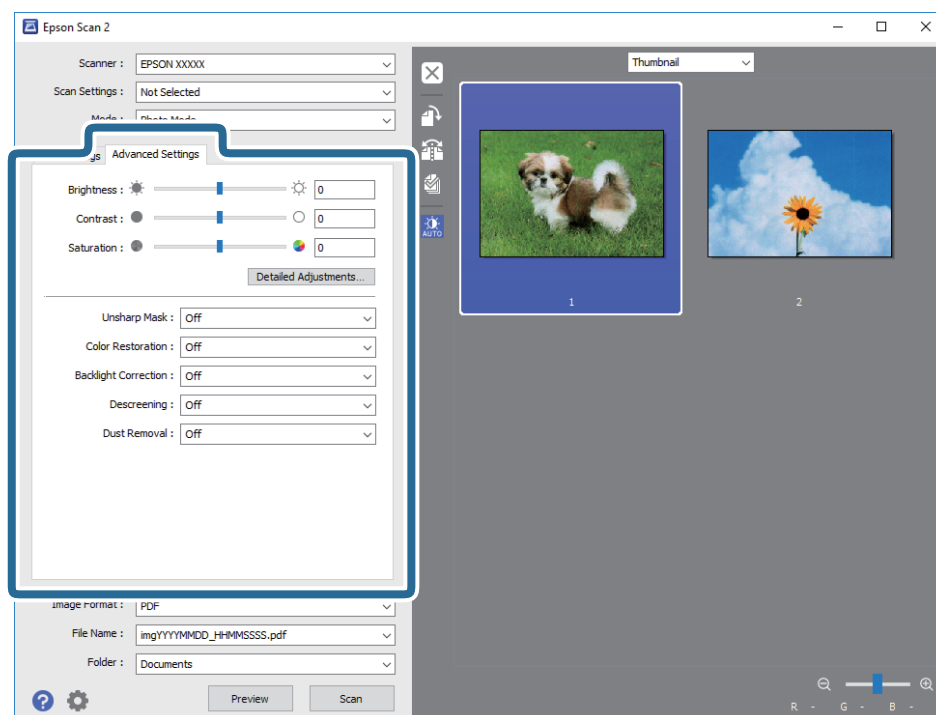
The preview window opens, and the previewed image is displayed as thumbnails.



**Note:**

To preview the entire scanned area, select **Normal** from the list on the top of the preview window.

6. Check the preview, and make image adjustment settings on the **Advanced Settings** tab if necessary.



## Basic Scanning

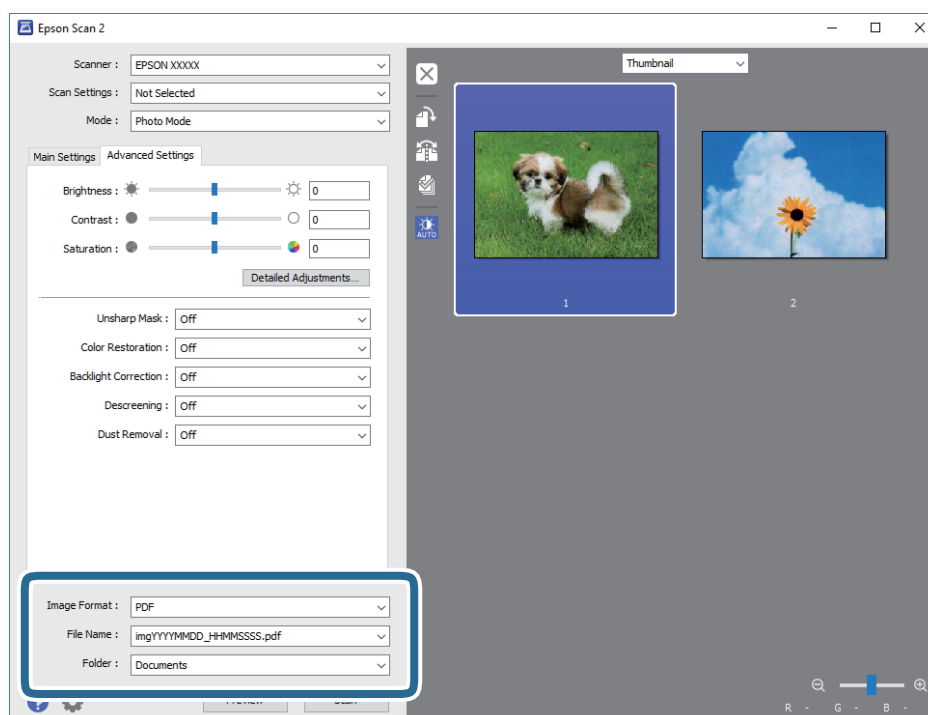
You can adjust the scanned image using detailed settings which are suitable for photos or pictures, such as the following.

- ☐ **Brightness:** Select to adjust the brightness for the scanned image.
- ☐ **Contrast:** Select to adjust the contrast for the scanned image.
- ☐ **Saturation:** Select to adjust the saturation (color vividness) for the scanned image.
- ☐ **Unsharp Mask:** Select to enhance and sharpen the outlines for the scanned image.
- ☐ **Color Restoration:** Select to correct images that have faded to return them to their original colors.
- ☐ **Backlight Correction:** Select to lighten scanned images that are dark due to backlight.
- ☐ **Descreening:** Select to remove moiré patterns (web-like shadows) that appear when scanning printed papers such as a magazine.
- ☐ **Dust Removal:** Select to remove dust on the scanned image.

**Note:**

- ☐ Some items may not be available depending on other settings you made.
- ☐ Depending on the original, the scanned image may not be adjusted correctly.
- ☐ When multiple thumbnails are created, you can adjust the image quality for each thumbnail. Depending on the adjustment items, you can adjust the quality of scanned images at the same time by selecting multiple thumbnails.

### 7. Set the file saving settings.



- ☐ **Image Format:** Select the save format from the list.

You can make detailed settings for each save format except BITMAP and PNG. After selecting the save format, select **Options** from the list.

- ☐ **File Name:** Check the save file name displayed.

You can change settings for the file name by selecting **Settings** from the list.

## Basic Scanning

- ☐ **Folder:** Select the save folder for the scanned image from the list.

You can select another folder or create a new folder by selecting **Select** from the list.

8. Click **Scan**.

### Related Information

- ➔ [“Placing Originals on the Product” on page 14](#)
- ➔ [“Epson Scan 2” on page 13](#)
- ➔ [“Setting a Resolution That Suits the Scanning Purpose” on page 25](#)
- ➔ [“Image Adjustment Features for Photo Mode” on page 27](#)

## Scanning Documents (Document Mode)

Using **Document Mode** in Epson Scan 2, you can scan the originals using detailed settings that are suitable for text documents.

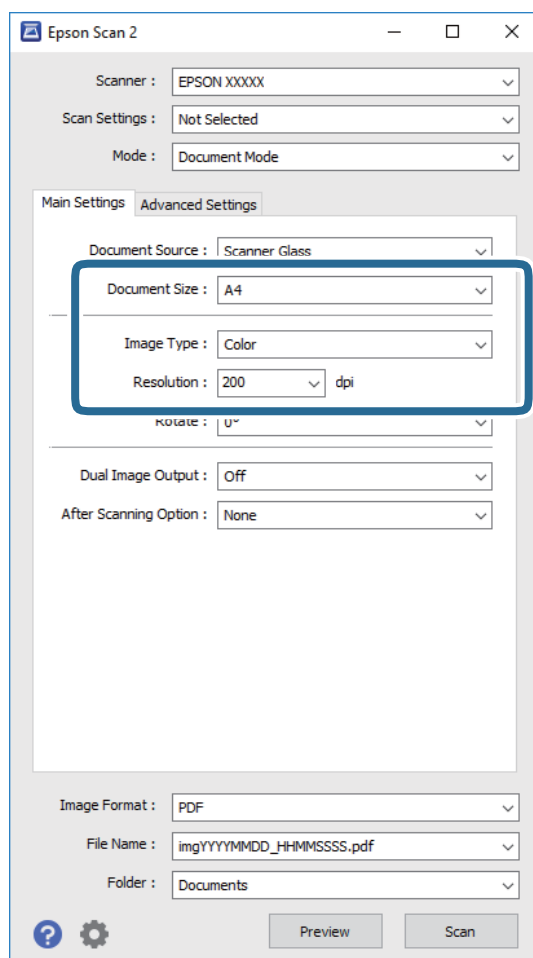
### Note:

*You cannot scan negatives with the Transparency Unit when using **Document Mode**.*

1. Place the originals.
2. Start Epson Scan 2.
  - ☐ Windows 10  
Click the start button, and then select **All apps > EPSON > Epson Scan 2**.
  - ☐ Windows 8.1/Windows 8  
Enter the application name in the search charm, and then select the displayed icon.
  - ☐ Windows 7  
Click the start button, and select **All Programs** or **Programs > EPSON > Epson Scan 2 > Epson Scan 2**.
  - ☐ Mac  
Select **Go > Applications > Epson Software > Epson Scan 2**.
3. Select **Document Mode** from the **Mode** list.

## Basic Scanning

- Make the following settings on the **Main Settings** tab.



- ☐ **Document Size:** Select the size of the original you placed.
- ☐ **Image Type:** Select the color for saving the scanned image.
- ☐ **Resolution:** Select the resolution.

**Note:**

The **Document Source** setting is fixed as **Scanner Glass** when using **Document Mode**. You cannot change this setting.

- Make other scan settings if necessary.

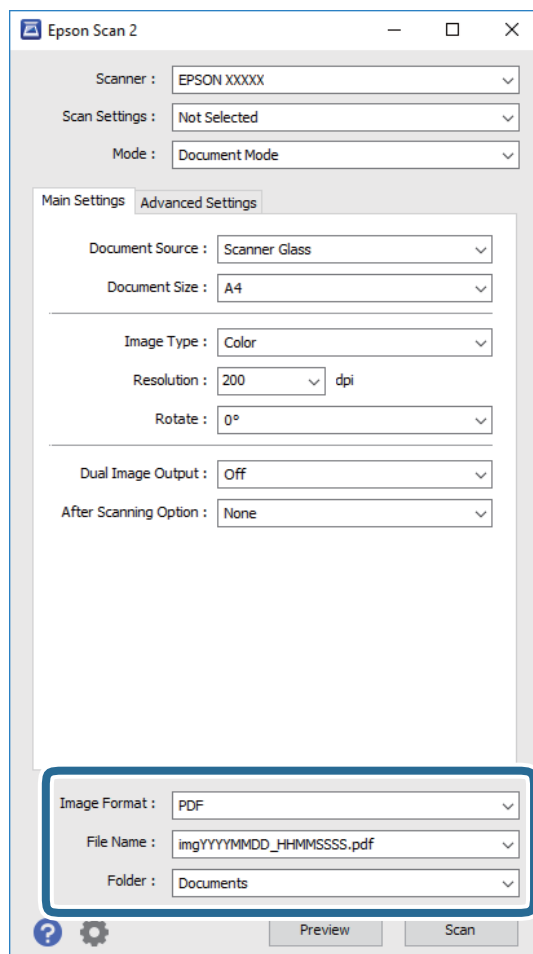
- ☐ You can preview the scanned image by clicking the **Preview** button. The preview window opens, and the previewed image is displayed.
- ☐ On the **Advanced Settings** tab, you can make image adjustments using detailed settings which are suitable for text documents, such as the following.
  - ☐ **Unsharp Mask:** Select to enhance and sharpen the outlines of the image.
  - ☐ **Descreening:** Select to remove moiré patterns (web-like shadows) that appear when scanning printed papers such as a magazine.
  - ☐ **Text Enhancement:** Select to make blurred letters in the original clear and sharp.
  - ☐ **Auto Area Segmentation:** Select to make letters clear and images smooth when performing black and white scanning for a document that contains images.

**Note:**

Some items may not be available depending on other settings you made.

## Basic Scanning

6. Set the file saving settings.



- ❑ **Image Format:** Select the save format from the list.

You can make detailed settings for each save format except BITMAP and PNG. After selecting the save format, select **Options** from the list.

- ❑ **File Name:** Check the save file name displayed.

You can change settings for the file name by selecting **Settings** from the list.

- ❑ **Folder:** Select the save folder for the scanned image from the list.

You can select another folder or create a new folder by selecting **Select** from the list.

7. Click **Scan**.

### Related Information

- ➡ [“Placing Originals on the Product” on page 14](#)
- ➡ [“Epson Scan 2” on page 13](#)
- ➡ [“Setting a Resolution That Suits the Scanning Purpose” on page 25](#)
- ➡ [“Image Adjustment Features for Document Mode” on page 33](#)



## Setting a Resolution

### Advantages and Disadvantages of Increasing the Resolution

Resolution indicates the number of pixels (smallest area of an image) for each inch (25.4 mm), and is measured in dpi (dots per inch). The advantage of increasing the resolution is that the details in the image become fine. The disadvantage is that the file size becomes large.

- ☐ File size becomes large

(When you double the resolution, the file size becomes about four times larger.)

- ☐ Scanning, saving, and reading the image takes a long time
- ☐ Sending and receiving emails or faxes takes a long time
- ☐ The image becomes too large to fit the display or print on the paper

### List of Recommended Resolutions

See the table and set the appropriate resolution for the purpose of your scanned image.

Purpose	Resolution (Reference)
Displaying on a screen Sending by email	Up to 200 dpi
Film Archiving	1,200 to 2,400 dpi
Using Optical Character Recognition (OCR) Creating a text searchable PDF	200 to 300 dpi
Printing using a printer Sending by fax	200 to 300 dpi

---



## Scanning Using a Scanner Button

You can scan using the button on your scanner.

**Note:**

*Before using this feature, check the following.*

- ☐ *Epson Scan 2 is installed on your computer.*
- ☐ *The scanner is connected to your computer correctly.*

1. Place the original.
2. Press the  button.  
Epson Scan 2 starts.
3. Make scan settings if necessary, and then press the  button again.  
Scanning starts.

**Related Information**

- ➔ [“Part Names” on page 10](#)
- ➔ [“Placing Originals on the Product” on page 14](#)

# Advanced Scanning

## Image Adjustment Features for Photo Mode

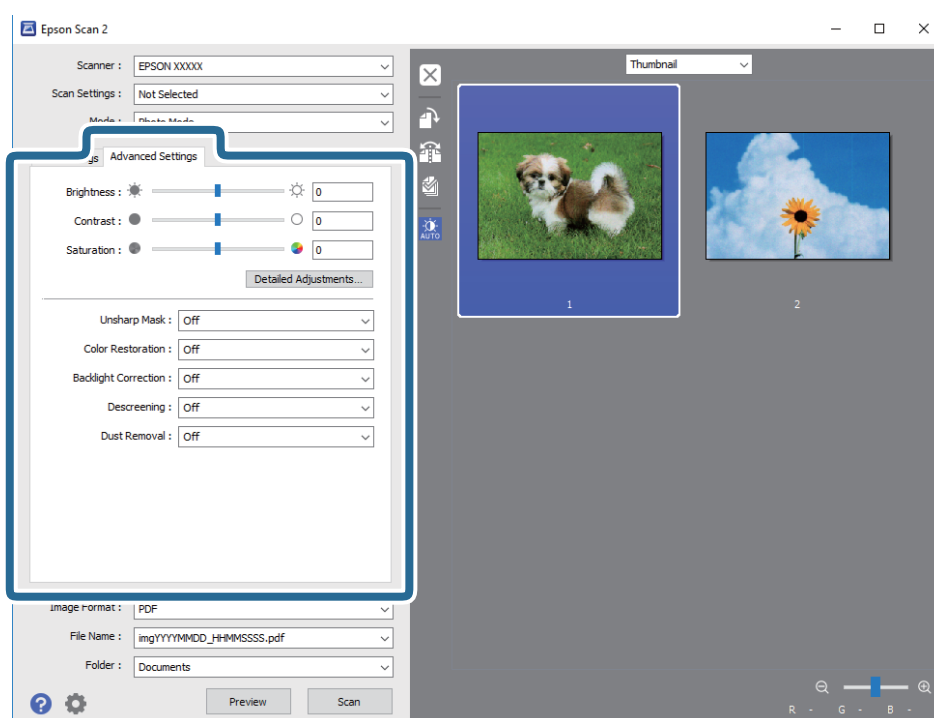
You can adjust scanned images using the features on the **Advanced Settings** tab in Epson Scan 2.

For **Photo Mode**, you can use image adjustment features that are suitable for photos or pictures.

For most features, you can check the adjustment results in the preview window.

**Note:**

*Some items may not be available depending on other settings you made.*



## Brightness

You can adjust the brightness for the whole image.



**Note:**

*This feature is not available depending on the settings on the **Main Settings** tab > **Image Type** or the settings on the **Advanced Settings** tab.*

## Advanced Scanning

### Contrast

You can adjust the contrast for the whole image. If you increase the contrast, the bright areas become brighter, and the dark areas become darker. On the other hand, if you lower the contrast, the differences between the bright and dark areas of the image are less defined.



**Note:**

*This feature is not available depending on the settings on the **Main Settings** tab > **Image Type** or the settings on the **Advanced Settings** tab.*

### Saturation

You can adjust the saturation (color vividness) for the whole image. When you increase the saturation, the colors become vivid. On the other hand, when you lower the saturation, the color becomes neutral (gray).



**Note:**

*This feature is not available depending on the settings in **Image Type** on the **Main Settings** tab.*

### Detailed Adjustments Button

You can click this button to display the **Detailed Adjustments** screen.

### Detailed Adjustments Screen

You can adjust the image quality for the scanned image by using a histogram or tone curve. This allows you to output high-quality images while keeping image degradation to a minimum.

### Reset button

Returns adjustments made on the **Detailed Adjustments** screen to their defaults.

## Advanced Scanning

### Image Adjustment Tab

You can adjust the color balance and gray balance of the image.



#### Color Balance

Adjusts the color balance of the image. You can adjust the tint when photos are tinted with red and green due to the weather or the lighting where the photo was shot.

#### Gray Balance Intensity

Adjusts the gray balance of the image. You can remove colors if they have too much of an impact on the image due to the illumination and so on of specific colors.

Operations are available once you select the parts you want to make black and white or gray (neutral)

with the  button.



**button**

Use the eyedropper displayed on the preview image, and select the parts you want to make black and white or gray (neutral).

**Note:**

You can change the measurement range for the eyedropper by clicking the



(**Configuration**) button, and then selecting

**Configuration > Preview > Eyedropper Sampling Area.**

### Tone Correction Tab

You can use the tone curve to adjust the brightness and contrast of the image.



#### Tone Correction

By adjusting the shape of the tone curve, you can adjust the brightness and contrast of the image.

You can add up to 16 points along the line of the tone curve to control the shape.

You can remove unnecessary points by dragging the line outside the graph for the tone curve.

## Advanced Scanning

### Channel

Select the color (RGB) to be adjusted using the tone curve.

### Preset

Standard tone curves have already been registered. We recommend fine-tuning the tone curve after selecting an item that best suits your needs.

When selecting **Linear**, the tone curve becomes a straight line (density is not corrected).

## Histogram Adjustment Tab

You can use the histogram to adjust the brightness of the image.






### Histogram

While checking the histogram (a graph that indicates light and shade) of the image, you can adjust the brightness (shadow for the darkest parts, gamma for the medium light and shade parts, and highlight for the lightest parts) of the image.

Adjust using one of the following methods.

- ☐ Move the triangle mark

The  symbol indicates shadow,  indicates gamma, and  indicates highlights.


- ☐ Select the  button

Use the eyedropper displayed on the preview image, and select the color you want to shadow, gamma, or highlight.

- ☐ Enter values directly

Adjust the values in **Output** for shadow and highlight. When the highlight is set to 255, the light parts will be white. When the shadow is set to 0, the dark parts will be black.

#### Note:

You can change the measurement range for the eyedropper by clicking the  (**Configuration**) button, and then selecting **Configuration** > **Preview** > **Eyedropper Sampling Area**.

### Channel

Select the color (RGB) to be adjusted using the histogram.

### Input

Displays the values for shadow, gamma, and highlight when scanning an original.

## Advanced Scanning

### Output

Displays the values for the previous shadow and highlight adjustments.

### Tone Curve

Displays the density for the output value for the image input value.

Adjusts the density outside of the shadow or highlight parts set in **Histogram**.

## Unsharp Mask

You can enhance and sharpen the outlines of the image.



**Note:**


*This feature is not available when selecting the **Main Settings** tab > **Image Type** > **Black & White**.*

## Color Restoration

You can correct images and film that have faded to return them to their original colors.



**Note:**

- ☐ Depending on the state of the original, it may not be corrected correctly. In this situation, adjust from the **Detailed Adjustments** screen.
- ☐ When adjusting image quality on the **Detailed Adjustments** screen after previewing an original, press the  (**Auto Exposure**) button on the preview screen.


## Advanced Scanning

### Backlight Correction

You can lighten images and film that are dark due to backlight.



**Note:**

- ☐ Depending on the state of the original, it may not be corrected completely. In this situation, adjust from the **Detailed Adjustments** screen.
- ☐ When adjusting image quality on the **Detailed Adjustments** screen after previewing an original, press the  (**Auto Exposure**) button again on the preview screen.

### Descreening

You can remove moiré patterns (web-like shadows) that appear when scanning printed paper such as a magazine.



To check for moiré patterns, display the image at 100 % (1:1). If the displayed image is zoomed out, the image appears rough and may look like it has moiré patterns.

**Note:**

- ☐ To use this feature, set the **Resolution** on the **Main Settings** tab to 600 dpi or less.
- ☐ This feature is not available when selecting the **Main Settings** tab > **Image Type** > **Black & White**.
- ☐ This feature is not available when scanning films.
- ☐ The effect of this feature cannot be checked in the preview window.
- ☐ This feature softens the sharpness of the scanned image.

### Dust Removal

You can remove dust on photos and film.





## Advanced Scanning

**Note:**

- ☐ Depending on the state of the original, it may not be corrected completely.
- ☐ The effect of this feature cannot be checked in the preview window.
- ☐ If the amount of free space in the memory is running low, you may not be able to scan.

## Grain Reduction

You can reduce the grainy texture or roughness in images that occurs when scanning film.



- ☐ Depending on the state of the original, it may not be corrected correctly.
- ☐ This feature is not available when scanning photos.
- ☐ The effect of this feature cannot be checked in the preview window.
- ☐ This feature softens the sharpness of the scanned results.

---

## Image Adjustment Features for Document Mode

You can adjust scanned images using the features on the **Advanced Settings** tab in Epson Scan 2.

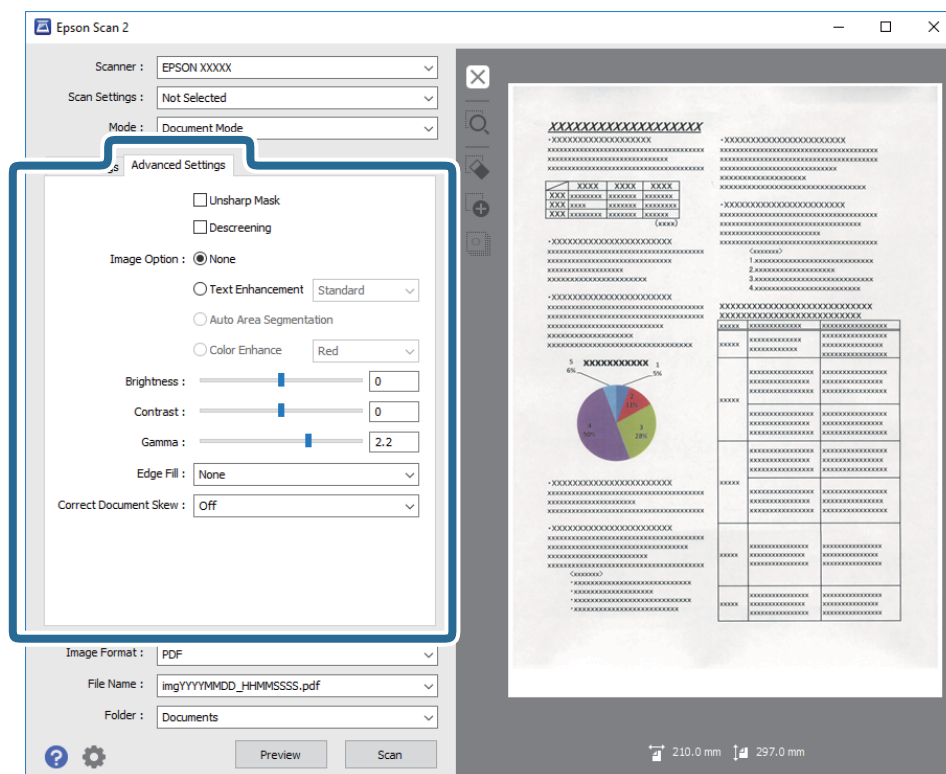
For **Document Mode**, you can use image adjustment features that are suitable for text documents.

For most features, you can check the adjustment results in the preview window.

## Advanced Scanning

### Note:

Some items may not be available depending on other settings you made.



## Unsharp Mask

You can enhance and sharpen the outlines of the image.



### Note:

This feature is not available when selecting the **Main Settings** tab > **Image Type** > **Black & White**.

## Descreening

You can remove moiré patterns (web-like shadows) that appear when scanning printed paper such as a magazine.



## Advanced Scanning

To check for moiré patterns, display the image at 100 % (1:1). If the displayed image is zoomed out, the image appears rough and may look like it has moiré patterns.

**Note:**

- ❑ To use this feature, set the **Resolution** on the **Main Settings** tab to 600 dpi or less.
- ❑ This feature is not available when selecting the **Main Settings** tab > **Image Type** > **Black & White**.
- ❑ This feature is not available when scanning films.
- ❑ The effect of this feature cannot be checked in the preview window.
- ❑ This feature softens the sharpness of the scanned image.

## Image Option

You can select the effect for the scanned image.

## Text Enhancement

You can make blurred letters in the original clear and sharp. You can also reduce the offset or unevenness of the background.



You can select the level of the effect when selecting the **Main Settings** tab > **Image Type** > **Color** or **Grayscale**.

**Note:**

To use this feature, set the **Resolution** on the **Main Settings** tab to 600 dpi or less.

## Auto Area Segmentation

You can make letters clear and images smooth when performing black and white scanning for a document that contains images.



You can adjust the quality of the image part of the original from **Brightness** and **Contrast**.

**Note:**

- ❑ You can only make settings for this feature when selecting the **Main Settings** tab > **Image Type** > **Black & White**.
- ❑ To use this feature, set the **Resolution** on the **Main Settings** tab to 600 dpi or less.

## Advanced Scanning

### Dropout

You can remove the color specified from the scanned image, and then save it in grayscale or black and white. For example, you can erase marks or notes you wrote in the margins with color pen when scanning.



If you select **Customize** from the color list in **Dropout**, you can make settings for the color you want to remove while checking the preview window (for Windows only).

**Note:**

*This feature is not available when selecting the **Main Settings tab > Image Type > Auto or Color**.*

### Color Enhance

You can enhance the color specified for the scanned image, and then save it in grayscale or black and white. For example, you can enhance letters or lines that are in light colors.



If you select **Customize** from the color list in **Color Enhance**, you can make settings for the color you want to enhance while checking the preview window (for Windows only).

**Note:**

*This feature is not available when selecting the **Main Settings tab > Image Type > Auto or Color**.*

### Brightness

You can adjust the brightness for the whole image.



**Note:**

*This feature is not available depending on the settings on the **Main Settings tab > Image Type** or the settings on the **Advanced Settings tab**.*

## Advanced Scanning

### Contrast

You can adjust the contrast for the whole image. If you increase the contrast, the bright areas become brighter, and the dark areas become darker. On the other hand, if you lower the contrast, the differences between the bright and dark areas of the image are less defined.



**Note:**

*This feature is not available depending on the settings on the **Main Settings** tab > **Image Type** or the settings on the **Advanced Settings** tab.*

### Gamma

You can adjust the gamma (brightness of the intermediate range) for the whole image. If the image is too light or too dark, you can adjust the brightness.

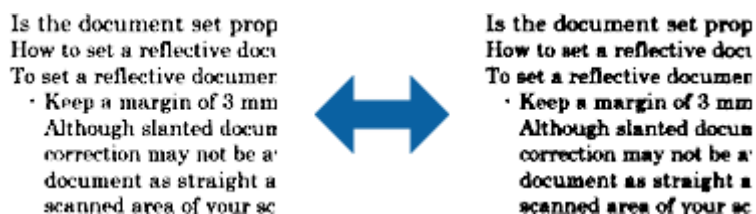


**Note:**

*This feature is not available depending on the settings on the **Main Settings** tab > **Image Type** or the settings on the **Advanced Settings** tab.*

### Threshold

You can adjust the border for monochrome binary (black and white). Increase the threshold, the black color area becomes larger. Decrease the threshold, the white color area becomes larger.



**Note:**

*This feature may not be available depending on the settings on the **Main Settings** tab > **Image Type** or the settings on the **Advanced Settings** tab.*

## Advanced Scanning

### Edge Fill

You can remove the shadow created around the scanned image.



For double-sided scanning, the settings for the edge fill range are mirror-reversed for the back of the original.

If you select **Settings**, the **Edge Fill Level** screen is displayed, and you can adjust the edge fill ranges for the top, bottom, left, and right.

**Note:**

*The effect of this feature cannot be checked in the preview window.*

### Correct Document Skew

You can correct the slant of the original.



#### Off

The slant of the original is not corrected.

#### Contents Skew

Corrects the slant of the content of the original that was printed at an angle and so on.

**Note:**

- ☐ To use this feature, set the **Resolution** on the **Main Settings** tab to 600 dpi or less
- ☐ This feature may not be able to correct documents that have been over skewed.
- ☐ The effect of this feature cannot be checked in the preview window.

## Saving as a Searchable PDF

You can save the scanned image as a Searchable PDF. This is a PDF in which searchable text data is embedded.

## Advanced Scanning

**Note:**

- ❑ *Text on the originals is recognized using Optical Character Recognition (OCR), and then embedded in the scanned image.*
- ❑ *This feature is only available when the EPSON Scan OCR component (Windows) or Epson Scan 2 OCR component (Mac) is installed.*

1. Place the original.
2. Start Epson Scan 2.
3. Make settings for each item on the **Main Settings** tab.
4. Click **Preview**.
5. Check the preview, and make other settings on the **Advanced Settings** tab if necessary.
6. Select **Searchable PDF** from the **Image Format** list.
7. Select **Options** from the **Image Format** list to open the **Image Format Options** window.
8. Select the **Text** tab on the **Image Format Options** window.
9. Check that the language of the original is selected in the **Text Language** list.
10. Click **OK** to close the **Image Format Options** window.
11. Check the save file name displayed in **File Name**.
12. Select the save folder for the scanned image from the **Folder** list.
13. Click **Scan**.

The scanned image is saved as a Searchable PDF.

**Related Information**

- ➡ [“Scanning Using Epson Scan 2” on page 18](#)
- ➡ [“Placing Originals on the Product” on page 14](#)
- ➡ [“Text is Not Recognized Correctly when Saving as a Searchable PDF” on page 59](#)

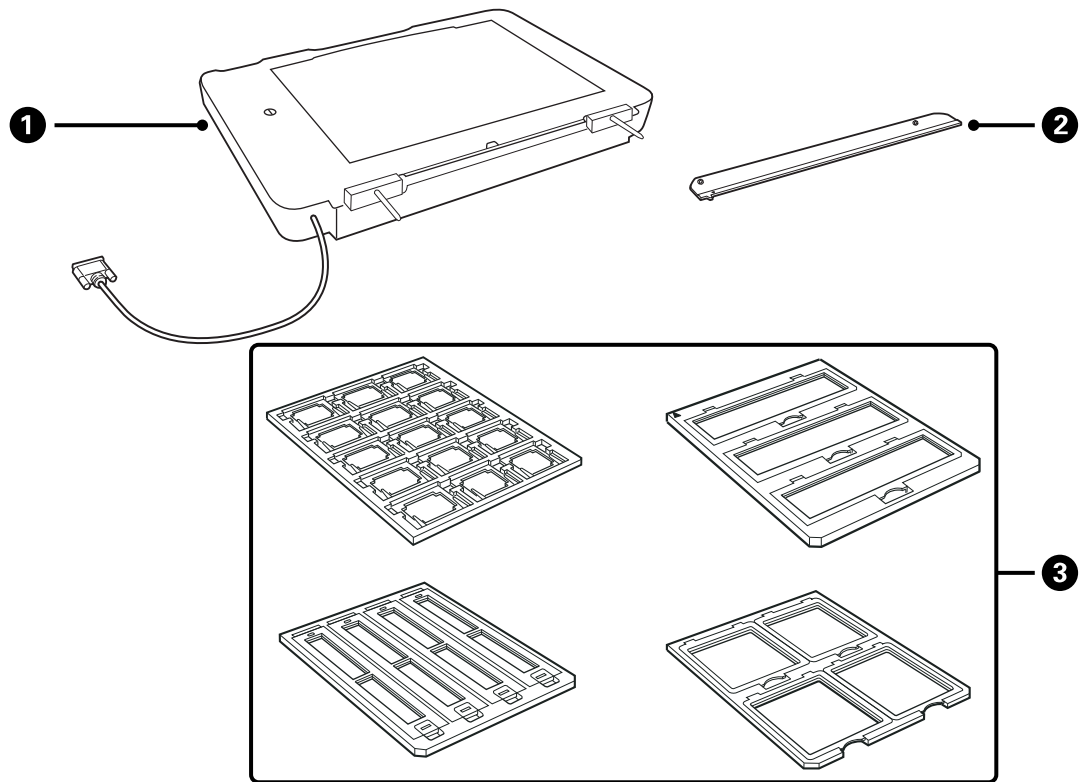


# Using the Transparency Unit

## Unpacking the Transparency Unit

The optional A3 Transparency Unit (B12B819221) allows you to scan films and slides in full color. Once you install the Transparency Unit, you can leave it in place even when you want to return to scanning normal (paper) originals.

Make sure that all the items shown below are included and have not been damaged during shipping. Contact your Epson dealer if any item is missing or damaged.



1	Transparency Unit
2	Transparency guide
3	Film holders (2 of each)

## Unlocking the transportation lock

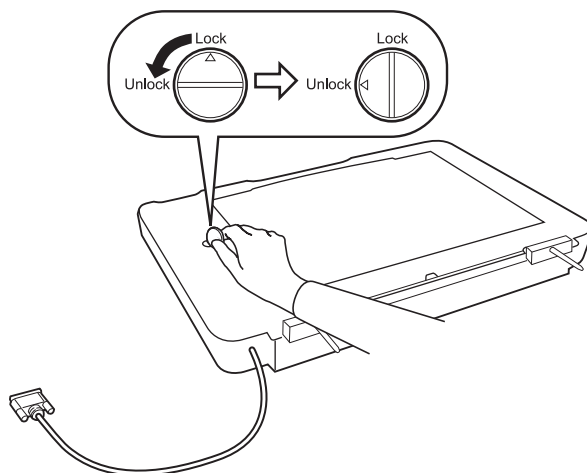
Before you install the Transparency Unit, you need to unlock the transportation lock.

1. Turn the unit so that the glass side faces up.



## Using the Transparency Unit

2. Use a coin to unlock the transportation lock by turning it counter-clockwise one-quarter.

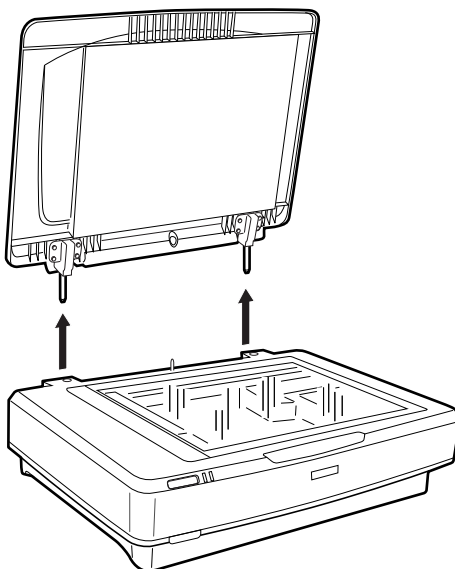


**Note:**

- ❑ Before transporting the scanner, lock the transportation lock to prevent damage.
- ❑ If the unit's lamp assembly is not in its home position, you cannot lock the transportation lock. In this case, reattach the unit to the scanner, close the unit, and then turn on the scanner; the unit's lamp assembly then returns to its home position. Turn off the scanner and remove the Transparency Unit.

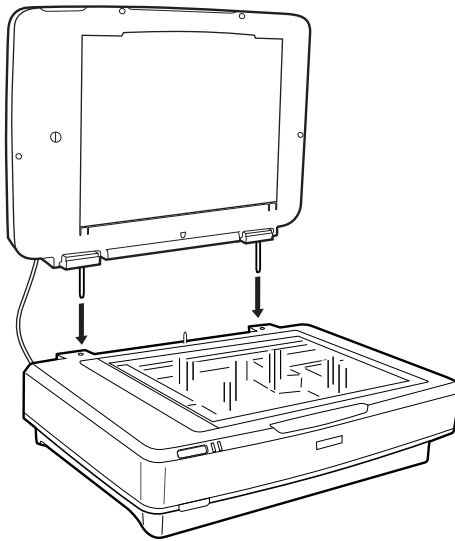
## Installing the Transparency Unit

1. Make sure the scanner is turned off, and then unplug the power cord from the scanner.
2. Open the scanner's document cover, and then remove it by lifting the cover straight up.

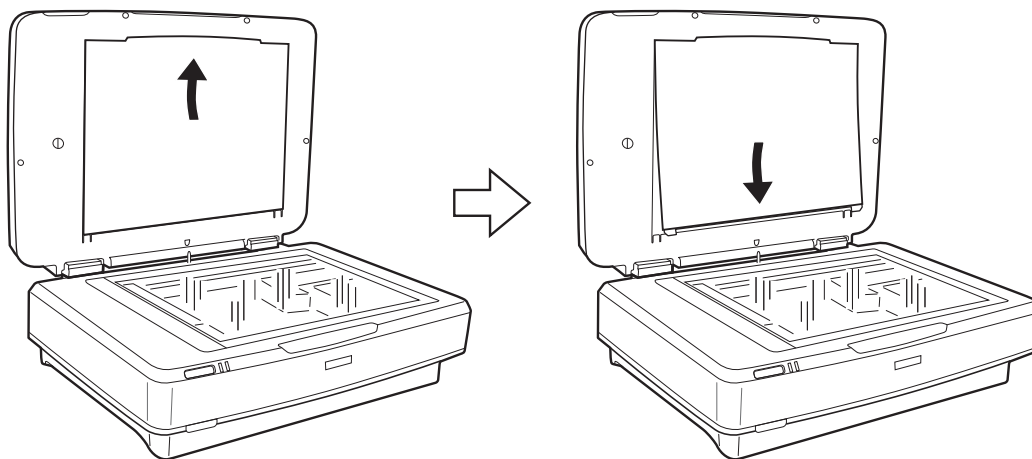


### Using the Transparency Unit

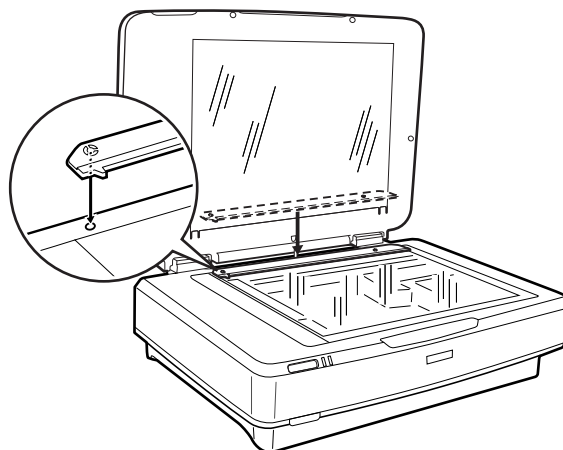
3. Align the pins of the unit with the holes of the scanner, and then lower the unit until it rests securely on the scanner with the pins in the holes.



4. Remove the document mat from the Transparency Unit as shown below.



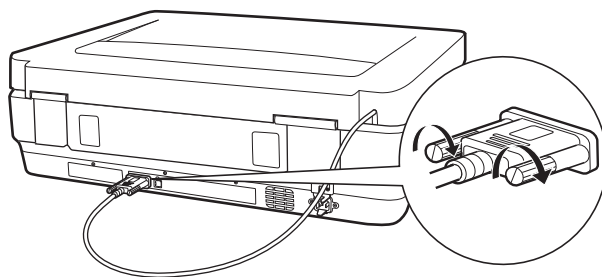
5. Place the transparency guide on the upper edge of the scanner glass as shown below.



6. Close the Transparency Unit.

## Using the Transparency Unit

7. Connect the Transparency Unit's connector to the option connector at the back of the scanner.



8. Connect the power cord to the scanner and then turn on the scanner.



**Important:**

*Do not put heavy objects on the Transparency Unit; otherwise the unit may be damaged.*

---

## Setting and Placing Films

**Note:**

- ☐ Before scanning films, make sure you use a soft cloth to wipe the Transparency Unit glass and the scanner glass.
- ☐ When scanning films, select the **Photo Mode** in Epson Scan 2, and make sure you set the **Document Source** and **Document Type** correctly.

1. Open the Transparency Unit.
2. Place the film in the appropriate holder.
3. Place the film holder on the scanner glass, aligning it with the notch on the transparency guide. Make sure the glossy side of the film is facing down.
4. Close the Transparency Unit.

If the document mat is installed in the Transparency Unit, remove it.

Use your scanner software to scan the film.

**Note:**

- ☐ Make sure the Transparency Unit is completely closed; otherwise, an option error occurs and you cannot scan.
- ☐ Store the document mat in the pocket on the top of the Transparency Unit when not in use.

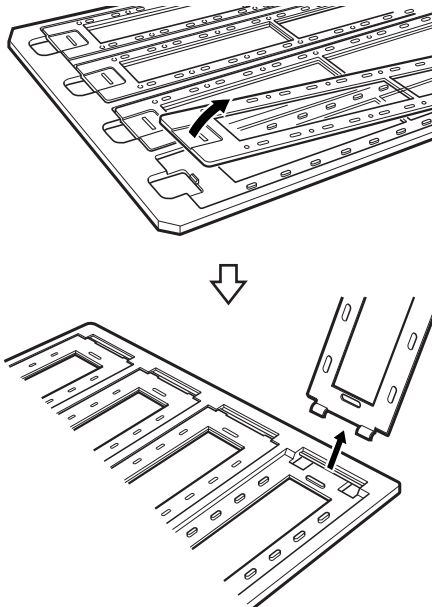
### Related Information

➔ [“Installing the Transparency Unit” on page 41](#)

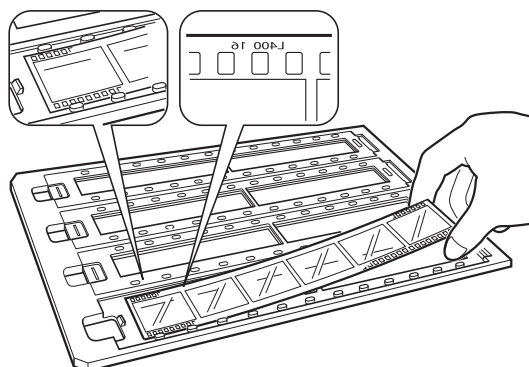
## Using the Transparency Unit

### 35 mm film strips

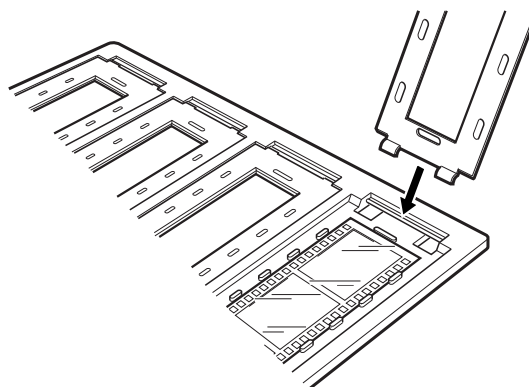
1. Place the 35 mm film holder on a flat surface, and then remove the strip cover.



2. Insert the film, face down, in the holder.

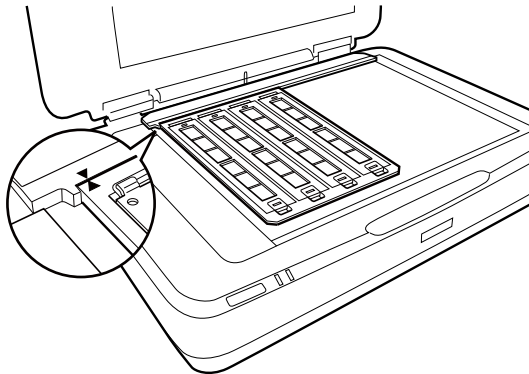


3. Replace the strip cover that you removed in step 1. Repeat steps 1 to 3 for all the film strips you want to scan.



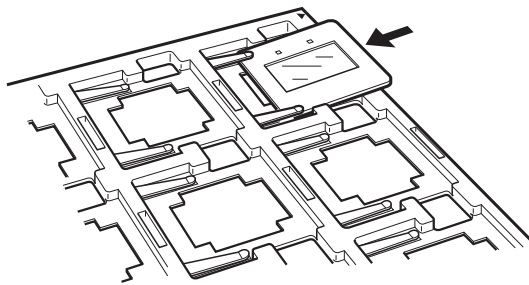
## Using the Transparency Unit

4. Place the film holder on the scanner glass and align it with the notch on the transparency guide as shown below.

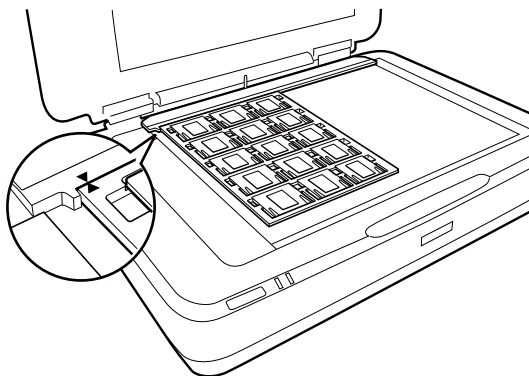


## Mounted slides

1. Load slides, face down, in the Mounted slide holder, as shown below. Repeat this step for all the slides you want to scan.



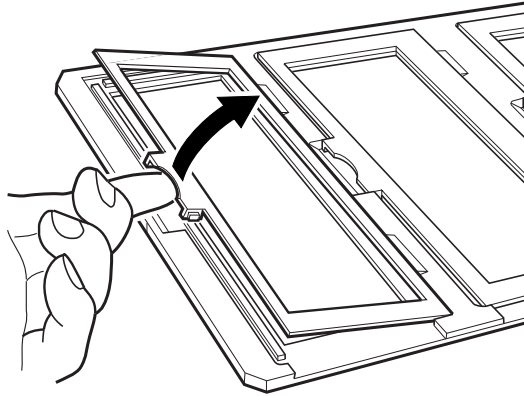
2. Place the slide holder on the scanner glass. Align the slide holder with the notch on the transparency guide, as shown below.



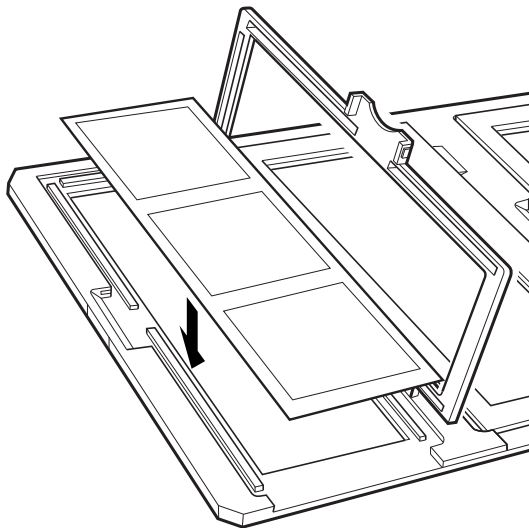
## Using the Transparency Unit

### Medium format (120/220)

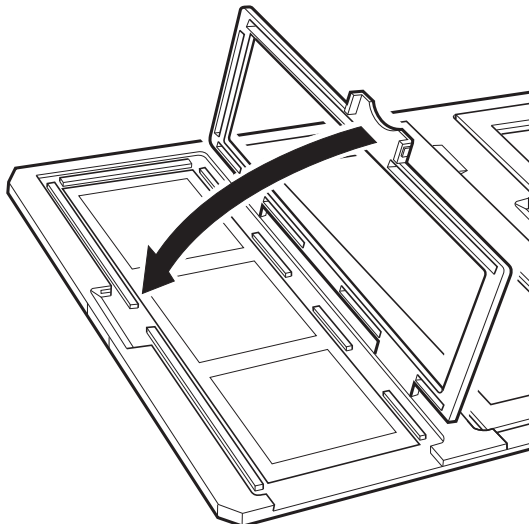
1. Place the Medium format holder on a flat surface, and then open the strip cover.



2. Insert the film, face down, in the holder.

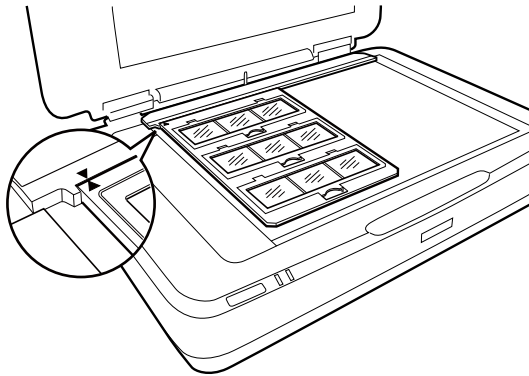


3. Close the cover. Repeat steps 1 to 3 for all the films you want to scan.



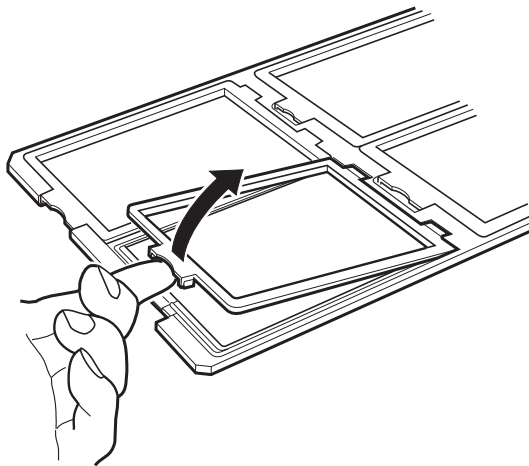
## Using the Transparency Unit

4. Place the film holder on the scanner glass and align it with the notch on the transparency guide, as shown below.

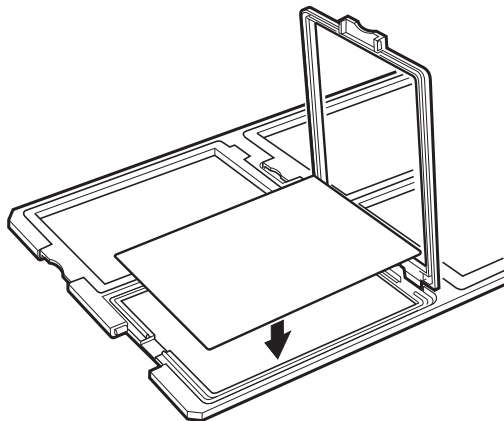


## 4×5 inch film

1. Place the 4×5 inch film holder on a flat surface, and then open the cover.

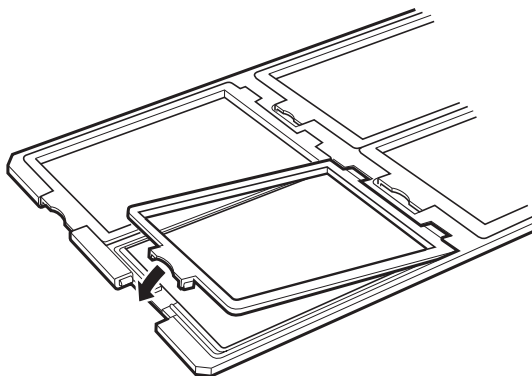


2. Insert the film, face down, in the holder.

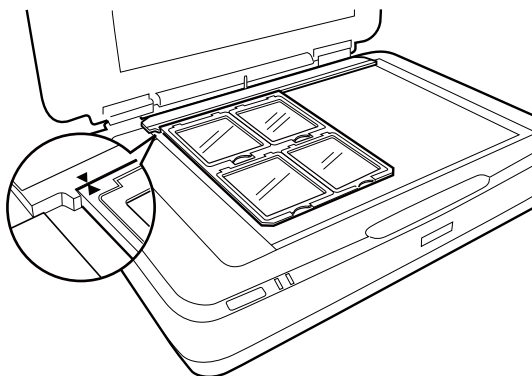


## Using the Transparency Unit

3. Close the cover. Repeat steps 1 to 3 for all the films you want to scan.

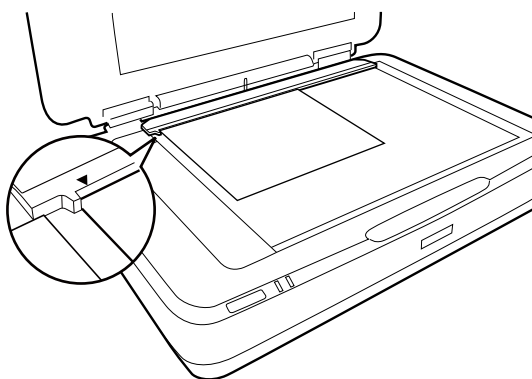


4. Place the holder on the scanner glass and align it with the notch on the transparency guide, as shown below.



## Non-standard film sizes

Place the film directly on the scanner glass, making sure the glossy (smooth) side of the film is facing down.



If the document mat is installed in the Transparency Unit, remove it. Close the Transparency Unit.

### **Note:**

- ❑ An area  $17.0 \pm 0.5$  mm ( $0.7 \pm 0.02$  inches) from the horizontal and  $2.0 \pm 0.5$  mm ( $0.08 \pm 0.02$  inches) from the vertical edges of the scanner glass cannot be scanned.
- ❑ When you place the film directly on the scanner glass, make sure you set the focus position to 0.0 in Epson Scan 2.



---

# Using the Transparency Unit to Scan

## Scanning films with suitable settings

This section explains how to make settings suitable for materials you want to scan.

1. Make sure the scanner is connected to your computer.
2. Place your films on the scanner glass.
3. Start Epson Scan 2.
4. Select **Photo Mode** from the **Mode** list.
5. Make the following settings on the **Main Settings** tab.
  - ☐ **Document Source:** Select **Transparency Unit**.
  - ☐ **Document Type:** Select the film type to match your films.
  - ☐ **Image Type:** Select the color for saving the scanned image.
  - ☐ **Resolution:** Select the resolution.

**Note:**

*When you specify a high resolution, the number of pixels in the data increases and the scanned image becomes fine in texture. However, increasing the resolution causes the data size to increase. Specify a suitable resolution according to the scanning purpose.*

6. Click **Preview**.
7. Confirm the preview, and make other settings on the **Advanced Settings** tab if necessary.
8. Set the **Image Format** setting.
9. Confirm the save file name displayed in **File Name**.
10. Select the save folder for the scanned image from the **Folder** list.
11. Click **Scan**.

### Related Information

➡ [“Image Adjustment Features for Photo Mode” on page 27](#)

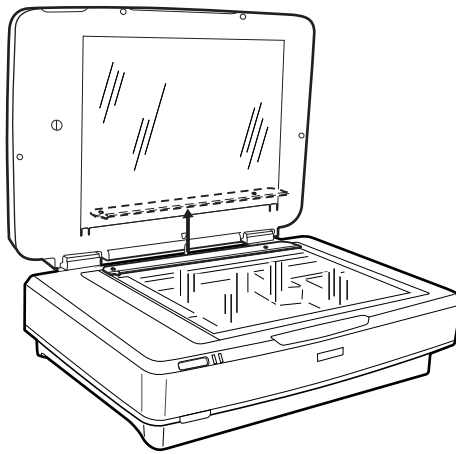
## Scanning reflective (non-film) originals

To scan reflective originals using the Transparency Unit, always insert the document mat included with this unit. Also, make sure you remove the transparency guide from the scanner glass.

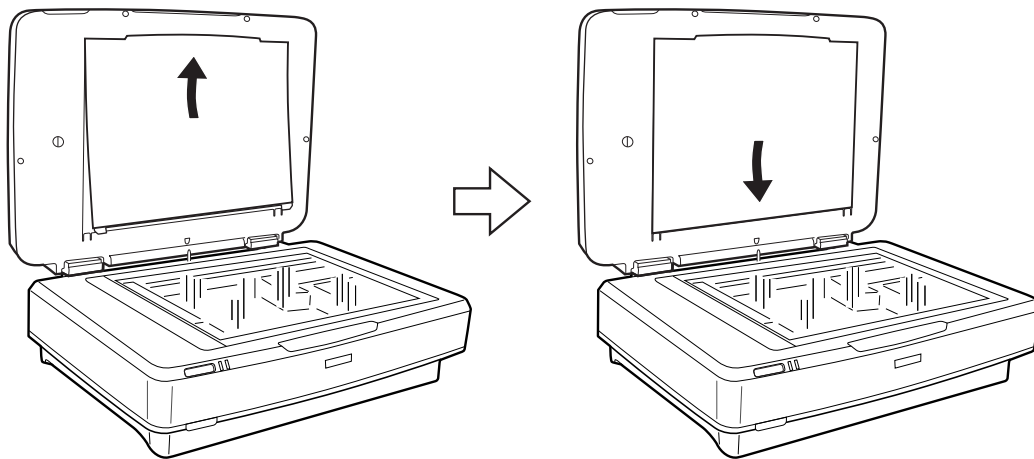
Insert the document mat as described below.

## Using the Transparency Unit

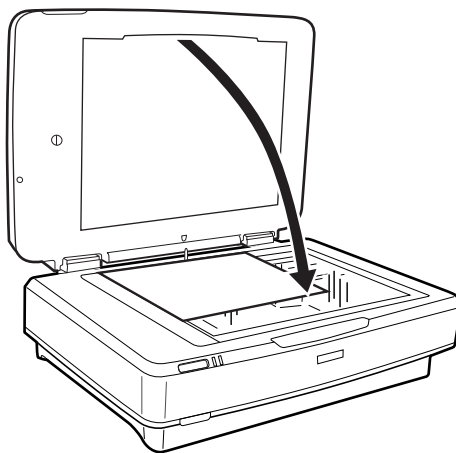
1. Open the Transparency Unit, and then remove the transparency guide from the scanner glass.



2. Slide the mat into the upper side, and then insert the tabs into the slots on the lower side slots on the Transparency Unit.



3. Place your document on the scanner glass, and then close the Transparency Unit.



# Maintenance

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## Cleaning the Scanner

To keep your scanner operating at its best, clean it periodically using the following procedure.

**Important:**

- ☐ Do not press the glass surface of the scanner glass with any force.
- ☐ Be careful not to scratch or damage the glass surface of the scanner glass, and do not use a hard or abrasive brush to clean it. A damaged glass surface can decrease the scan quality.
- ☐ Never use alcohol, thinner, or corrosive solvent to clean the scanner. These chemicals can damage the product components and the case.
- ☐ Be careful not to spill liquid into the scanner mechanism or electronic components. This could permanently damage the mechanism and circuitry.
- ☐ Do not spray lubricants on the scanner.
- ☐ Never open the scanner case.

1. Turn off the scanner.
2. Unplug the power cord from the scanner.
3. Clean the outer case with a cloth dampened with mild detergent and water.
4. If the glass surface gets dirty, clean it with a soft dry cloth. If the glass surface is stained with grease or some other hard-to-remove material, use a small amount of glass cleaner and a soft cloth to remove it. Wipe off all remaining liquid.

Make sure that dust does not build up on the glass surface. Dust can cause spots and straight lines in your scanned images.

**Important:**

*Do not spray glass cleaner directly on the glass surface.*

5. Clean the document cover if it gets dirty.

### Related Information

➔ [“Part Names” on page 10](#)

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## Energy Saving

This product will enter sleep mode after a period of nonuse. This is to ensure that the product meets Energy Star standards of energy efficiency. More energy savings can be achieved by setting the time to sleep to a shorter interval.

## Maintenance

1. Start Epson Scan 2 Utility.

- ❑ Windows 10

Click the start button, and then select **All apps > EPSON > Epson Scan 2 > Epson Scan 2 Utility**.

- ❑ Windows 8.1/Windows 8

**Start** screen > **Apps > Epson > Epson Scan 2 Utility**.

- ❑ Windows 7

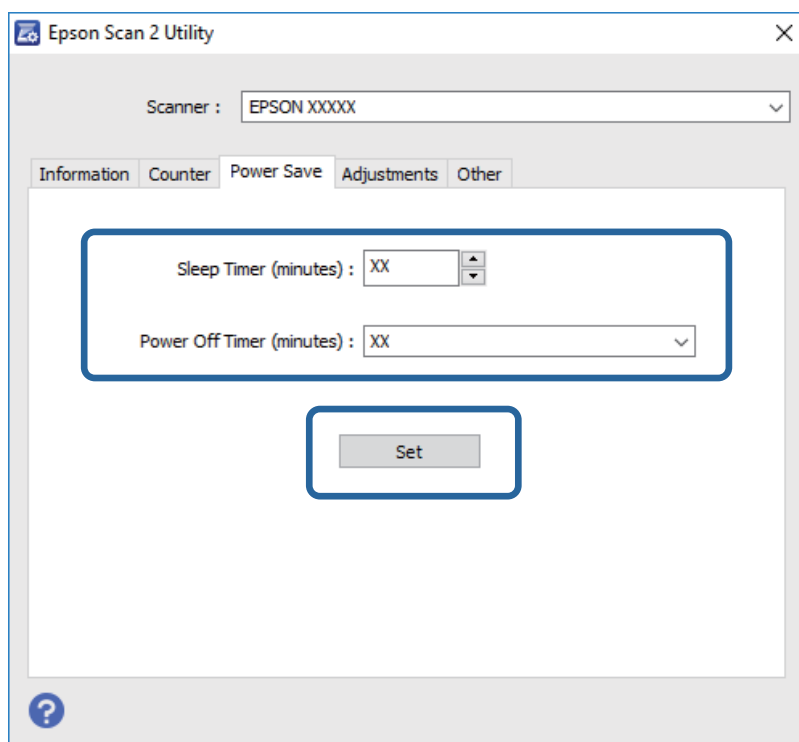
Click the start button, and then select **All Programs (or Programs) > EPSON > Epson Scan 2 > Epson Scan 2 Utility**.

- ❑ Mac

Select **Go > Applications > EPSON Software > Epson Scan 2 Utility**.

2. Click the **Power Save** tab.

3. Set the **Sleep Timer (minutes)** or **Power Off Timer (minutes)**, and then click **Set**.



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## Transporting the Scanner

Before you transport the scanner for a long distance or store it for an extended period of time, you need to lock the carriage to prevent damage.

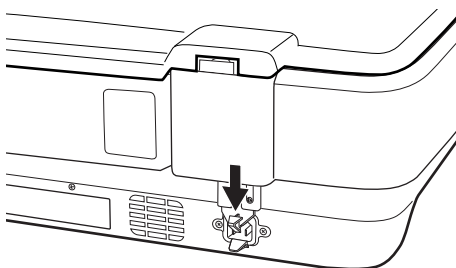


**Caution:**

*Because the product is heavy, one person should never attempt to lift or carry it alone. Two people should lift and carry the product.*

## Maintenance

1. Make sure the carriage is in the home position on the left side of the scanner. If the carriage is not in the home position, turn on the scanner and wait until the carriage moves to the home position.
2. Turn off the scanner, and then unplug the power cord.
3. Disconnect the USB cable from the scanner.
4. Pull down the transportation lock.



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

### Related Information

➡ [“Part Names” on page 10](#)

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## Updating Applications

You may be able to clear certain problems and improve or add functions by updating the applications. Make sure you use the latest version of the applications.

1. Make sure that the scanner and the computer are connected, and the computer is connected to the internet.
2. Start EPSON Software Updater, and update the applications.

☐ Windows 10

Click the start button, and select **All apps > Epson Software > EPSON Software Updater**.

☐ Windows 8.1/Windows 8

Enter the application name in the search charm, and then select the displayed icon.

☐ Windows 7

Click the start button, and then select **All Programs** or **Programs > Epson Software > EPSON Software Updater**.

☐ Mac

Select **Finder > Go > Applications > Epson Software > EPSON Software Updater**.

## Maintenance

**Important:**

*Do not turn off the computer or the scanner while updating.*

**Note:**

*If you cannot find the application you want to update in the list, you cannot update using the EPSON Software Updater. Check for the latest versions of the applications on your local Epson website.*

<http://www.epson.com/support>

# Solving Problems

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## Scanner Problems

### Scanner Lights Indicate an Error

Check the following if the scanner lights indicate an error.

- ☐ Make sure the scanner is connected to your computer properly.
- ☐ Try to rescan the original. The scanner returns to normal when it receives correct commands.
- ☐ Make sure Epson Scan 2 is installed correctly.
- ☐ Make sure the transportation lock has been released.
- ☐ Turn off the scanner and turn it on again. If this does not solve the problem, the scanner may be malfunctioning, or the light source in the scanner unit may need to be replaced. Contact Epson.

#### Related Information

➔ [“Buttons and Lights” on page 11](#)

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## Problems Starting Scanning

- ☐ Make sure the scanning software is fully installed.  
See the *Start Here* sheet for instructions on installing the scanning software.
- ☐ Check the status light and make sure the product is ready to scan.
- ☐ Make sure your cables are securely connected to the product and a working electrical outlet.
- ☐ Check that the electrical outlet is working. Plug another device into the electrical outlet and check that you can turn on the power.
- ☐ Turn off the scanner and computer, and then check the interface cable connection between them to make sure it is secure.
- ☐ Make sure you select the correct scanner if a scanner list appears when starting to scan.
- ☐ Connect the product directly to the computer's external USB port or through one USB hub only. The product may not work properly when connected to the computer through more than one USB hub. If the problem persists, try connecting the product directly to the computer.
- ☐ If more than one product is connected to your computer it may not work. Connect only the product you want to use, and then try scanning again.
- ☐ If the scanning software does not work properly, uninstall the software first and then reinstall it as described in the *Start Here* sheet.
- ☐ If the light source has reached the end of its service life, it must be replaced by a professional. For details, contact Epson.

## Solving Problems

### Related Information

- ➔ [“Uninstalling Your Applications” on page 61](#)
- ➔ [“Help for Users in the U.S. and Canada” on page 68](#)

## Cannot Start Epson Scan 2

- ☐ Make sure the scanner is connected to your computer properly.
- ☐ Make sure the USB cable is securely connected to the scanner and the computer.
- ☐ Use the USB cable that came with the scanner.
- ☐ If you are using the scanner with the Network Interface Unit, make sure the network cable is securely connected.
- ☐ Make sure the scanner is turned on.
- ☐ Wait until the status light stops flashing indicating that the scanner is ready to scan.
- ☐ Connect the scanner directly to the computer's USB port. The scanner may not work properly when connected to the computer through one or more USB hubs.
- ☐ If you are using any TWAIN-compliant applications, make sure that the correct scanner is selected as the scanner or source setting.

## Cannot Scan Using the Button

- ☐ Make sure the scanner is connected to your computer properly.
- ☐ Make sure Epson Scan 2 is installed correctly.

## Cannot Scan Using the Transparency Unit

- ☐ Make sure the document mat is removed from the scanner cover.
- ☐ Make sure the optional Transparency Unit is installed correctly.
- ☐ Make sure you are using **Photo Mode** and set the **Document Type** correctly.
- ☐ Make sure the film is set correctly in the film holder, and the film holder is properly positioned on the scanner glass.
- ☐ Make sure the transportation lock on the Transparency Unit is released.

### Related Information

- ➔ [“Installing the Transparency Unit” on page 41](#)
- ➔ [“Using the Transparency Unit to Scan” on page 49](#)
- ➔ [“Setting and Placing Films” on page 43](#)

## Cannot Scan Using Scanning Software Other Than Epson Scan 2

- ☐ If you are using any TWAIN-compliant programs, make sure that the correct scanner is selected as the source setting.



## Solving Problems

- ❑ If you cannot scan using a TWAIN-compliant scanning program, uninstall the TWAIN-compliant scanning program and then reinstall it.

---

## Scanned Image Problems

### Uneven Colors, Dirt, Spots, and so on Appear when Scanning from the Scanner Glass

- ❑ Clean the scanner glass.
- ❑ Remove any trash or dirt that adheres to the original.
- ❑ Do not press with too much force on the original or the document cover. If you press with too much force, blurring, smudges, and spots may occur.

#### Related Information

➔ [“Cleaning the Scanner” on page 51](#)

### The Image Quality is Rough

- ❑ Set the **Mode** in Epson Scan 2 according to the original you want to scan. Scan using the settings for documents in **Document Mode**, and the settings for photos in **Photo Mode**.
- ❑ In **Photo Mode** in Epson Scan 2, set the **Document Type** on the **Main Settings** tab according to the original you want to scan.
- ❑ If the resolution is low, try increasing the resolution and then scanning.
- ❑ In Epson Scan 2, adjust the image using items on the **Advanced Settings** tab, and then scan.

#### Related Information

- ➔ [“Setting a Resolution That Suits the Scanning Purpose” on page 25](#)
- ➔ [“Image Adjustment Features for Photo Mode” on page 27](#)
- ➔ [“Image Adjustment Features for Document Mode” on page 33](#)

### Offset Appears in the Background of Images

Images on the back of the original may appear in the scanned image.

- ❑ In Epson Scan 2, select the **Advanced Settings** tab, and then adjust the **Brightness**.  
This feature may not be available depending on the settings on the **Main Settings** tab > **Image Type** or other settings on the **Advanced Settings** tab.
- ❑ In **Document Mode** in Epson Scan 2, select the **Advanced Settings** tab, and then **Image Option** > **Text Enhancement**.
- ❑ When scanning from the scanner glass, place black paper or a desk pad over the original.

## Solving Problems

### Related Information

- ➔ [“Image Adjustment Features for Photo Mode” on page 27](#)
- ➔ [“Image Adjustment Features for Document Mode” on page 33](#)

## Text is Blurred

- ❑ In **Document Mode** in Epson Scan 2, select the **Advanced Settings** tab, and then **Image Option** > **Text Enhancement**.
- ❑ Select **Document Mode** as the **Mode** in Epson Scan 2. Scan using the settings for documents in **Document Mode**.
- ❑ In **Document Mode** in Epson Scan 2, when **Image Type** on the **Main Settings** tab is set to **Black & White**, adjust **Threshold** on the **Advanced Settings** tab. When you increase the **Threshold**, the black color area becomes larger.
- ❑ If the resolution is low, try increasing the resolution and then scanning.

### Related Information

- ➔ [“Image Adjustment Features for Photo Mode” on page 27](#)
- ➔ [“Image Adjustment Features for Document Mode” on page 33](#)
- ➔ [“Setting a Resolution That Suits the Scanning Purpose” on page 25](#)

## Moiré Patterns (Web-Like Shadows) Appear

If the original is a printed document, moiré patterns (web-like shadows) may appear in the scanned image.

- ❑ On the **Advanced Settings** tab in Epson Scan 2, set **Descreening**.



- ❑ Change the resolution, and then scan again.

### Related Information

- ➔ [“Image Adjustment Features for Photo Mode” on page 27](#)
- ➔ [“Image Adjustment Features for Document Mode” on page 33](#)
- ➔ [“Setting a Resolution That Suits the Scanning Purpose” on page 25](#)

## Cannot Scan the Correct Area on the Scanner Glass

- ❑ Make sure the original is placed correctly against the alignment marks.
- ❑ If the edge of the scanned image is missing, move the original slightly away from the edge of the scanner glass.

## Solving Problems

- ❑ When placing multiple originals on the scanner glass, make sure there is a gap of at least 20 mm (0.8 in.) between the originals.

### Cannot Preview in Thumbnail

- ❑ When placing multiple originals on the scanner glass, make sure there is a gap of at least 20 mm (0.8 in.) between the originals.
- ❑ Check that the original is placed straight.
- ❑ Depending on the original, previewing may not be performed in **Thumbnail**. In this situation, scan in **Normal** preview, and then create marquees manually.

### Cannot Achieve the Results Intended in Auto Photo Orientation

- ❑ Small photos are not rotated automatically.
- ❑ Film that is placed with the top and bottom inversed is not rotated automatically.
- ❑ Photos and film for which the top and bottom cannot be detected are not rotated automatically. Rotate manually using the **Rotate** button.

### Text is Not Recognized Correctly when Saving as a Searchable PDF

- ❑ On the **Image Format Options** window in Epson Scan 2, check that **Text Language** is set correctly on the **Text** tab.
- ❑ Check that the original is placed straight.
- ❑ Use an original with clear text. Text recognition may decline for the following types of originals.
  - ❑ Originals that have been copied a number of times
  - ❑ Originals received by fax (at low resolutions)
  - ❑ Originals on which the letter spacing or line spacing is too small
  - ❑ Originals with ruled lines or underlining over the text
  - ❑ Originals with hand-written text
  - ❑ Originals with creases or wrinkles
- ❑ In **Document Mode** in Epson Scan 2, when **Image Type** on the **Main Settings** tab is set to **Black & White**, adjust **Threshold** on the **Advanced Settings** tab. When you increase the **Threshold**, black becomes stronger.
- ❑ In **Document Mode** in Epson Scan 2, select the **Advanced Settings** tab, and then **Image Option > Text Enhancement**.

#### Related Information

- ➔ [“Saving as a Searchable PDF” on page 38](#)
- ➔ [“Image Adjustment Features for Photo Mode” on page 27](#)
- ➔ [“Image Adjustment Features for Document Mode” on page 33](#)

## Binding Margins of a Booklet are Distorted or Blurred

When scanning a booklet on the scanner glass, characters may appear distorted or blurred on the binding margin. If this problem occurs, text is not recognized correctly when you save the scanned image as a **Searchable PDF**.

To decrease distortion or blurring on the binding margin, gently press down the document cover and hold it down while scanning to flatten the booklet. Make sure you do not move the booklet while scanning.

**Important:**

*Do not press the document cover with too much force. Otherwise, the booklet or the scanner may be damaged.*

## Cannot Solve Problems in the Scanned Image

If you have tried all of the solutions and have not solved the problem, initialize the Epson Scan 2 settings using Epson Scan 2 Utility.

**Note:**

*Epson Scan 2 Utility is an application that comes with Epson Scan 2.*

1. Start Epson Scan 2 Utility.

☐ Windows 10

Click the start button, and then select **All apps > EPSON > Epson Scan 2 Utility**.

☐ Windows 8.1/Windows 8

Enter the application name in the search charm, and then select the displayed icon.

☐ Windows 7

Click the start button, and then select **All Programs** or **Programs > EPSON > Epson Scan 2 > Epson Scan 2 Utility**.

☐ Mac

Select **Go > Applications > Epson Software > Epson Scan 2 Utility**.

2. Select the **Other** tab.

3. Click **Reset**.

**Note:**

*If initialization does not solve the problem, uninstall and re-install Epson Scan 2.*

## Striped Rings Appear in Scanned Images of Film or Slides

A ring-shaped pattern of stripes (called a Newton ring) sometimes appears on scanned images of transparent materials. This may occur if the film is curled.


## Colors Differ From the Original Colors for Film or Slide Images

Clean the scanner.

**Related Information**

➔ [“Cleaning the Scanner” on page 51](#)

## Negative Film Preview Images Look Strange

- ❑ Make sure the **Document Type** is set correctly for your film.
- ❑ If you are using **Normal** as the **Normal/Thumbnail**, the dark area around the film and the frame of the film holder is perceived as white. This alters the exposure and causes images to appear darker. Create marquees on the image area you want to scan, and then click the  (**Zoom**) button to preview the area.
- ❑ For **Normal/Thumbnail**, use **Thumbnail** instead of **Normal**.

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## Problems With Scanning Time

- ❑ Computers with Hi-Speed external USB ports can scan faster than those with external USB ports. If you are using a Hi-Speed external USB port with your product, make sure it meets the system requirements.
- ❑ Scanning at a high resolution takes a long time.
- ❑ When using security software, exclude the TWAIN.log file from monitoring, or set the TWAIN.log as a read-only file. For more information on your security software's functions, see the help and so on supplied with the software.

The TWAIN.log file is saved in the following location.

C:\Users\ (user name) \AppData\Local\Temp

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## Uninstalling and Installing Applications

### Uninstalling Your Applications

You may need to uninstall and then reinstall your applications to solve certain problems or if you upgrade your operating system. Log on to your computer as an administrator. Enter the administrator password if the computer prompts you.

### Uninstalling Your Applications for Windows

1. Quit all running applications.
2. Disconnect the scanner from your computer.

## Solving Problems

### 3. Open the Control Panel:

#### ☐ Windows 10

Right-click the start button or press and hold it, and then select **Control Panel**.

#### ☐ Windows 8.1/Windows 8

Select **Desktop > Settings > Control Panel**.

#### ☐ Windows 7

Click the start button and select **Control Panel**.

### 4. Open **Uninstall a program**.

Select **Uninstall a program** in **Programs**.

### 5. Select the application you want to uninstall.

### 6. Uninstall the applications:

Click **Uninstall/Change** or **Uninstall**.

#### **Note:**

*If the User Account Control window is displayed, click Continue.*

### 7. Follow the on-screen instructions.

#### **Note:**

*A message may be displayed prompting you to restart your computer. If it is displayed, make sure **I want to restart my computer now** is selected, and then click **Finish**.*

## Uninstalling Your Applications for Mac

#### **Note:**

*Make sure you installed EPSON Software Updater.*

### 1. Download the Uninstaller using EPSON Software Updater.

Once you have downloaded the Uninstaller, you do not need to download it again each time you uninstall the application.

### 2. Disconnect the scanner from your computer.

### 3. To uninstall the scanner driver, select **System Preferences** from the menu > **Printers & Scanners** (or **Print & Scan, Print & Fax**), and then remove the scanner from the enabled scanner list.

### 4. Quit all running applications.

## Solving Problems

5. Select **Finder > Go > Applications > Epson Software > Uninstaller**.
6. Select the application you want to uninstall, and then click Uninstall.

**Important:**

*The Uninstaller removes all drivers for Epson scanners on the computer. If you use multiple Epson scanners and you only want to delete some of the drivers, delete all of them first, and then install the necessary scanner drivers again.*

**Note:**

*If you cannot find the application you want to uninstall in the application list, you cannot uninstall using the Uninstaller. In this situation, select **Finder > Go > Applications > Epson Software**, select the application you want to uninstall, and then drag it to the trash icon.*

## Installing Your Applications

Follow the steps below to install the necessary applications.

**Note:**

- ☐ Log on to your computer as an administrator. Enter the administrator password if the computer prompts you.
- ☐ When reinstalling applications, you need to uninstall them first.

1. Quit all running applications.
2. When installing Epson Scan 2, disconnect the scanner and the computer temporarily.

**Note:**

*Do not connect the scanner and the computer until you are instructed to do so.*

3. Install the application by following the instructions on the *Start Here* sheet .

# Technical Specifications

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## General Scanner Specifications

**Note:**

*Specifications are subject to change without notice.*

Scanner type	Flatbed A3 Color Image Scanner
Photoelectric device	Color CCD line sensor
Document Size	310×437 mm (12.2×17.2 inches)
Scanning resolution	2400 dpi (main scan) 4800 dpi with Micro Step (sub scan)
Output resolution	50 to 6400 dpi
Image data	16 bits per pixel per color internal 1 to 16 bits per pixel per color external
Interface	One Hi-speed USB port
Light source	LED Lamp

**Note:**

*Optional optical resolution is the maximum scan resolution of the CCD elements, according to the ISO 14473 definitions. ISO 14473 defines optical resolution as the fundamental sampling rate of the scan sensor.*

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## Dimensional Specifications

Dimensions *	Width: 656.0 mm (25.8 inches) Depth: 458.0 mm (18.4 inches) Height: 158.0 mm (6.2 inches)
Weight	Approx. 14.3 kg (31.5 lb)

\* Without protruding parts.

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## Electrical Specifications

Rated input voltage	AC 100 to 240 V
Rated input current	0.9 to 0.5 A
Rated input frequency	50 to 60 Hz



## Technical Specifications

Power consumption	<p>Operating:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Average 30 W or below (without the optional Transparency Unit)</li> <li><input type="checkbox"/> Average 40 W or below (with the optional Transparency Unit)</li> <li><input type="checkbox"/> Max. 40 W or below (without the optional Transparency Unit)</li> <li><input type="checkbox"/> Max. 50 W or below (with the optional Transparency Unit)</li> </ul> <p>Ready mode:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Approx. 20 W (without the optional Transparency Unit)</li> <li><input type="checkbox"/> Approx. 22 W (with the optional Transparency Unit)</li> </ul> <p>Sleep mode:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2.8 W or below (without the optional Transparency Unit) (100 V, 115 V, 230 V)</li> <li><input type="checkbox"/> After approx 14 minutes from no operation (without ESC! Command)</li> </ul> <p>Power supply OFF:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 0.5 W or below (ErP Lot6: "Tier2" correspondence)</li> </ul>
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## Environmental Specifications

Temperature	Operating	5 to 35 °C (41 to 95 °F)
	Storage	-25 to 60 °C (-13 to 140 °F)
Humidity	Operating	10 to 80% (without condensation)
	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.

## Interface Specifications

### USB Interface

Interface type	Hi-Speed USB
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

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## System Requirements

Windows	Windows 10 (32-bit, 64-bit) Windows 8.1 (32-bit, 64-bit) Windows 8 (32-bit, 64-bit) Windows 7 (32-bit, 64-bit)
Mac *1 *2	macOS v10.12.x Mac OS X v10.11.x Mac OS X v10.10.x Mac OS X v10.9.x Mac OS X v10.8.x Mac OS X v10.7.x Mac OS X v10.6.8

\*1 Fast User Switching on Mac is not supported.

\*2 The UNIX File System (UFS) for Mac is not supported.

# Standards and Approvals

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## Standards and Approvals for U.S. Model

Safety	UL60950-1 CAN/CSA-C22.2 No. 60950-1
EMC	FCC Part 15 Subpart B Class B CAN/CSA-CEI/IEC CISPR22 Class B

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## Standards and Approvals for European Model

The following model is CE marked and in compliance with all the applicable EU Directives. For further details, visit the following website to access the full declaration of conformities containing reference to the Directives and harmonized standards used to declare conformity.

<http://www.epson.eu/conformity>

J331B

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## Standards and Approvals for Australian Model

EMC	AS/NZS CISPR22 Class B
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# Where to Get Help

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## Help for Users in the U.S. and Canada

If you need to contact Epson for technical support services, use the following support options.

### Internet Support

Visit [www.epson.com/support](http://www.epson.com/support) (U.S.), [www.epson.ca/support](http://www.epson.ca/support) (Canada), or [www.epson.com.jm/support](http://www.epson.com.jm/support) (Caribbean) for solutions to common problems. You can download drivers and documentation, get FAQs and troubleshooting advice, or e-mail Epson with your questions.

### Speak to a Support Representative

Before you call Epson for support, please have the following information ready:

- ☐ Product name
- ☐ Product serial number (located on a label on the product)
- ☐ Proof of purchase (such as a store receipt) and date of purchase
- ☐ Computer configuration
- ☐ Description of the problem

Then call:

- ☐ U.S.: (562) 276-4382, 6 AM to 8 PM, Pacific Time, Monday through Friday, and 7 AM to 4 PM, Pacific Time, Saturday
- ☐ Canada: (905) 709-3839, 6 AM to 8 PM, Pacific Time, Monday through Friday, and 7 AM to 4 PM, Pacific Time, Saturday

Days and hours of support are subject to change without notice. Toll or long distance charges may apply.

**Note:**

*For help using any other software on your system, see the documentation for that software for technical support.*

### Purchase Supplies and Accessories

You can purchase genuine Epson accessories at [www.epson.com](http://www.epson.com) (U.S. sales) or [www.epson.ca](http://www.epson.ca) (Canadian sales).

You can also purchase accessories from an Epson authorized reseller. To find the nearest one, call 800-GO-EPSON (800-463-7766).