

## Color Graphics Scanner User's Guide

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## Welcome

The Epson Expression<sup>®</sup> 10000XL is a 48-bit color, professional scanner designed to meet the needs of graphic arts professionals and business graphics users. With Epson's ColorTrue<sup>®</sup> II Imaging System, the scanner reproduces images of amazingly accurate detail and color. Achieving up to 2400 × 4800 dpi hardware resolution with Epson's proprietary Micro Step Drive<sup>™</sup> technology, the Epson Expression 10000XL is one of the fastest scanners in its class.

## **About Your Scanner**

Your Epson® scanner comes with these features:

- Superior image quality with remarkable 2400 × 4800 dpi hardware resolution
- 48-bit color and 3.8 Dmax optical density for improved highlight and shadow detail on slides, negatives, and transparencies
- Easy-to-use scanner software with three modes tailored to different scanning needs (Home, Office, and Professional)
- Optional transparency unit (included with the Expression 10000XL Photo) and optional automatic document feeder that let you quickly scan slides, transparencies, and paper documents
- Built-in USB 2.0 and IEEE 1394 (FireWire<sup>®</sup>) ports, and optional Network Image Express interface card

## **Getting More Information**

There are several ways to learn more about your Epson Expression 10000XL scanner. In addition to the printed materials, help utilities and electronic manuals are available. Here's where to look for help:



#### Start Here sheet

The Start Here sheet tells you how to set up your scanner and install its software. It also tells you about some of your scanner's special features.

#### User's Guide

This User's Guide provides instructions on using EPSON Scan, along with scanner maintenance information and troubleshooting tips.

#### Electronic Reference Guide

An electronic Reference Guide is included on your Scanner Software CD-ROM. This guide provides additional details on using your scanner. See the *Start Here* sheet for instructions on how to install it, if you haven't done so already. See page 9 for instructions on viewing it.

#### On-screen help

For more information about your EPSON Scan software, click the Help button. The applications that come with your scanner also include on-screen help.

#### Additional manuals

Adobe® Photoshop® Elements, ABBYY® FineReader® Sprint, Monaco Systems® MonacoEZcolor,<sup>®</sup> and LaserSoft Imaging<sup>™</sup> SilverFast<sup>®</sup> (Photo version of the scanner only) include electronic manuals in Adobe Acrobat PDF format.

If you need further assistance, see "Where To Get Help" on page 79.

## Warnings, Cautions, Notes, and Tips

Please follow these guidelines as you read this manual:

**Warning:** Warnings must be followed carefully to avoid bodily injury.

**Caution:** Cautions must be observed to avoid damage to your equipment.

**Note:** Notes contain important information about your scanner.

**Tip:** Tips contain additional hints for great scanning.

## **Viewing Your Electronic Reference Guide**

To view the electronic *Reference Guide*, you must have a web browser such as Netscape Navigator<sup>®</sup> or Microsoft<sup>®</sup> Internet Explorer, versions 4.0 or later, or Apple<sup>®</sup> Safari<sup>TM</sup> 1.0 or later. If you haven't already installed the guide on your computer, see the *Start Here* sheet for instructions.

To open the guide, double-click the Expression 10000XL Reference Guide icon on your desktop.

Your browser opens and you see this window:



Click one of the icons on the left side of the screen to view a list of subtopics, then click a subtopic to view that section of the manual.

## Chapter 1 Scanning Basics

This chapter gives you step-by-step instructions for using EPSON Scan, the scanning software that comes with your Epson Expression 10000XL. You can find out about:

- Placing your document on the scanner's document table
- Launching EPSON Scan and scanning a document
- Using the preview screen to select the area of your image you want to scan
- Using special features in Home, Office, and Professional Mode
- Scanning directly to a file from EPSON Scan

## **Placing Your Original Document**

This section explains how to position a photo or single-page document for scanning.

**Note:** To place multiple photos for scanning, see page 39. To scan multi-page documents using the automatic document feeder, see page 55. To scan transparencies or film using the transparency unit, see page 46.

1. Raise the scanner cover and place your document face-down on the document table. Place it in the upper-left corner, aligning it with the edges of the glass.



2. Close the document cover, being careful not to move the document.

**Tip:** If the edges of your document don't scan properly, move it in about 1/16 of an inch (1.5 mm) from the edges of the glass.

You can raise or remove the document cover if you need to scan a thick item such as a photo in an album—that doesn't fit under the cover. Simply lift the back of the cover straight up. When you reinsert the cover, line up the hinge pins with the positioning holes and lower the cover into place.

## **Using EPSON Scan**

EPSON Scan provides three scanning modes:

■ Home Mode: Makes scanning quick and easy, and provides excellent results for all types of documents. Use for scanning photos, text, and line art, when advanced control over image quality settings is not required.

Home Mode automatically applies exposure and color balance settings to your images, and you can manually adjust the brightness and contrast if necessary. You can also apply various adjustments, such as Color Restoration (see page 33) and Backlight Correction (see page 36).

■ Office Mode: Ideal for scanning business documents containing text and graphics. Use for scanning contracts, invoices, and newsletters, with or without color. Also great for scanning multi-page documents with the optional automatic document feeder (see page 55), or when scanning documents for OCR (optical character recognition) to create editable text.

**Note:** You cannot scan film in Office Mode, and it is not recommended for scanning photos.

Professional Mode: Gives you the greatest control over image color and quality. Automatically applies exposure and color balance settings to your images—or lets you manually adjust any setting, including the histogram setting, tone, color depth, balance, saturation, brightness, and contrast. If you have faded photos, you can restore their color using Color Restoration. You can also use these additional adjustments and choose how strongly they're applied: Unsharp Mask, Backlight Correction, Descreening, Dust Removal, and (when scanning film with the optional transparency unit) Grain Reduction. See page 33 for details.

## Scanning Your Image

You can open EPSON Scan from any TWAIN-compliant imaging application, such as Adobe Photoshop Elements, and then scan images into your application, as described below.

**Note:** The examples in this chapter assume that you're using EPSON Scan with an imaging application. You can also use EPSON Scan in "standalone" mode to scan images directly to a file on your computer's hard drive (see page 27).

First, place your document on the scanner as described on page 11. Then follow these steps to start EPSON Scan and scan an image:

- 1. Turn on the scanner, and wait about 30 seconds for it to initialize. The green Ready light stops flashing and stays on.
- 2. Open your imaging application, then choose the **Import** (or **Acquire**) option in the application and select **Epson Expression 10000XL**.

**Note:** If you are using Microsoft Windows<sup>®</sup> Vista<sup>™</sup> or XP and choose WIA-EPSON Expression 10000XL, certain features won't be available.

The EPSON Scan dialog box opens.

- Choose a mode from the Mode list at the top of the EPSON Scan screen. (See page 12 for a description of the modes.)
- Adjust any settings in EPSON Scan, as needed. For example, if you're using Home Mode, select the Document Type, Image Type, and Destination settings that are appropriate for your image and how you want to use it.



5. Click the **Preview** button to see a preview of your scan.

**Note:** The Thumbnail preview screen is shown at right. Depending on your selected mode, you may see the Full-size preview screen instead. See page 15 to switch between the Thumbnail and Full-size preview screens.

6. Click and drag within the preview image to select the area you want to scan. See page 16 for details on selecting the scan area.

**Note:** Image quality adjustments will be automatically applied to the selected area, unless you've turned off the **Continuous auto exposure** setting (see page 32). For best results, avoid including borders with the selected area.



7. If you're previewing your image as a thumbnail (as shown above), you can click the button to rotate the image, if needed. You can also click the to mirror the image.

- 8. Click Scan.
- 9. When scanning completes, click **Close** to exit EPSON Scan and view the scanned image in your imaging application.

Now you can use your imaging application to further modify the image, save it to your hard drive, or print it.

### Using the Preview Screen

The preview screen lets you select the area of your image you want to scan. You do this by drawing a box (or marquee) around the previewed image. It also lets you make adjustments to your image before scanning.

There are two ways to preview images:

- In the **Thumbnail** preview screen, EPSON Scan automatically locates and crops the image you've placed on the scanner, and corrects the angle of the image if it's tilted.
- In the Full-size preview screen, you see the full scanned area (your image plus any white space that's unoccupied on the scanner glass). You can manually select the portion of the image you want to scan, and make any other desired adjustments.

To select the Thumbnail preview, click the checkbox below the Preview button.

Preview Thumbnail		<u>S</u> can	
Help	Configuration		Close

**Note:** With some modes and settings, this checkbox is grayed-out and you

cannot select the Thumbnail option. Your images will open in the Full-size preview screen.

When previewing images as thumbnails, EPSON Scan may cut off part of your image if its edges are quite light. In that case, either click the **Configuration** button on EPSON Scan's main screen and increase the size of the thumbnail cropping area, or preview your image using the Full-size preview screen instead.

#### Selecting the Scanning Area

There are three ways to select the scanning area:

#### Manually

To select the area you want to scan, click and drag inside the preview image to draw a marquee. The selected area is surrounded by a dotted line.

■ Auto-detect (Full-size preview screen only)

To automatically create a marquee around your image and crop out the document table area, click the Auto locate button. If you open your image in the Thumbnail preview screen, the document table area is already cropped out, but you may still need to apply a marquee to remove any borders.

#### By target size

If you know how you plan to use the final image (for example, if you're printing it as a  $4 \times 6$  photo or digitally projecting it), you can create a marquee with exactly the right proportions. On EPSON Scan's main screen, select a **Target Size** (under the Destination settings), then click the  $\widehat{}$  icon to choose either portrait or landscape orientation. Move and resize the marquee as needed.

Once you select the scanning area, image quality adjustments are automatically applied within the marquee (unless you've turned off **Continuous auto exposure**; see page 32). For best results, do not include borders when selecting the image area.

#### Moving and Resizing Marquees

Once you've created a marquee, you can move and resize it if necessary.

- To move the marquee, place the cursor within its borders. When the cursor turns to a hand symbol, click and drag the marquee to a new position. Hold down the Shift key to limit movement to the horizontal or vertical directions.
- To resize the marquee, place the cursor on its edge or corner. When the cursor turns into an arrow symbol, click and drag to resize the selection area. Hold down the Shift key to resize the marquee proportionally.

If you're viewing your image on the Thumbnail preview screen and it appears sideways or upside down, click the button to rotate the image upright. Click the button to create a mirror image.

#### Applying Image Adjustments

After positioning the marquee where you want it, you can make additional image quality adjustments. The adjustments apply only to the selected area.

See page 25 for more information about applying basic exposure and color adjustments. You can also restore color, correct backlighting, or apply special adjustments to enhance your images, as described on page 33.

On the Full-size preview screen, you can check the results of your adjustments more closely by clicking the Zoom button. Or (on both preview screens) you can use the Densitometer to inspect the image on a pixel-by-pixel basis. Click the Densitometer button, then hold your mouse pointer over the image to view color components on the Densitometer screen. For details, click the Help button.



#### Working With Multiple Marquees

In the Normal preview screen (shown below), you can draw up to 50 marquees. This lets you select more than one part of the image for scanning (the area within each marquee is scanned as a separate image, even if you have overlapping marquees). You can make independent image quality adjustments for each selected area.



- To apply the same image quality adjustments to all selected areas at once, click the All button, then make any desired adjustments.
- Use the Copy and C Erase buttons to add or remove marquees as needed.
- When you're ready to scan, click the All button to select all the marquees for scanning; otherwise, only the currently selected marquee is scanned.

**Note:** For instructions on placing multiple photos on the scanner and previewing them, see page 39.

## Scanning a Photo With Adobe Photoshop Elements

Adobe Photoshop Elements (included with your scanner) provides a variety of powerful tools for image editing, along with recipes and step-by-step instructions. Follow the example below to scan a photo in Home Mode with Photoshop Elements.

**Note:** This example shows you how to scan one photo at a time. You can also place several photos on the scanner and scan them; see page 39.

- 1. Place your photo on the scanner as described on page 11.
- 2. Double-click the Photoshop Elements icon on your desktop (Windows) or in your Applications folder (Macintosh<sup>®</sup>).
- 3. If you see the Welcome Screen, select Start From Scratch.
- 4. Open the File menu and select Import, then select EPSON Expression 10000XL.

**Note:** If you are using Windows Vista or XP and choose WIA-EPSON Expression 10000XL, certain features won't be available.

You see the EPSON Scan dialog box:

- 5. Select Home Mode from the selection box at the top of the screen.
- 6. In the Document Type list, choose Photo.
- 7. Choose an Image Type:
  - Color for color photos
  - Grayscale for black-and-white photos

🐇 EPSON Scan		_	
EPSON Scan		Mode: Home Mode	~
Document Type		-	
Photograph			~
Image Type			
Color     Ogr	ayscale	◯ <u>B</u> lack&White	
Destination			
⊖Screen/ <u>W</u> eb ⊚P	rinter	○ Oth <u>e</u> r	
Resolution: 301		❤ dpi	
Target Size: Or	iginal	٤٨ 🗸	
Image Adjustments			
Descreening	_	Backlight Correction	
Color Restoration		Dust Remo <u>⊻</u> al	
Bright <u>n</u> ess			
Breview D Ihumbnail		Scan	
Help	Configuration	<u></u> lose	

- 8. Choose a Destination setting:
  - Printer if you're printing the image
  - Screen/Web if you're viewing your image only on the screen
  - Other if you want to specify a resolution (see page 30)
- 9. Click the **Preview** button. Your image is scanned and appears in the preview screen.
- 10. Click and drag within the preview image to select the area you want to scan (see page 16) and to have image quality adjustments automatically applied to this area. For best results, avoid selecting any borders in your image.
- 11. If necessary, click the 🔛 button to rotate the image upright. Click the 🛅 button to create a mirror image.
- 12. If necessary, apply any of these adjustment settings:
  - Brightness and Contrast
  - Descreening (see page 35)
  - Color Restoration (see page 33)
  - Backlight Correction (see page 36)
  - Dust Removal (see page 37)
- 13. Click Scan.
- 14. When scanning completes, click **Close** to exit EPSON Scan and view the scanned image in Photoshop Elements.

You can use Photoshop Elements to further modify the image, save it to your hard drive, and print. For more information about using Photoshop Elements, click the Help menu at the top of the screen.



## Creating Editable Text With ABBYY FineReader Sprint

The ABBYY FineReader Sprint software included with your scanner lets you turn almost any printed document into editable text. You can scan a single page of text or, if you have the optional automatic document feeder, you can scan a multi-page document and save the text for editing.

**Note:** You can easily scan a multi-page document and save it as a pdf file. See page 60 for more information.

Follow the example below to scan a document in Office Mode with ABBYY FineReader Sprint.

- 1. Place your document(s) on the scanner.
  - For a single sheet, see page 11.
  - If you're using the optional ADF to scan multiple sheets, see page 58.
- 2. Start ABBYY FineReader Sprint.
  - Windows: Click Start or , select Programs or All Programs, then select the ABBYY FineReader Sprint R program icon.
  - Macintosh: Open your Applications folder, open the ABBYY FineReader folder, and then click the ABBYY FineReader Sprint R program icon.

The ABBYY FineReader program opens.

3. Click the Scan&Read button. If you're scanning multiple sheets, click the arrow as shown below and select Scan&Read Multiple Images.



You see the EPSON Scan dialog box:

Image Type						
O Color C	Greyscale	<u> Black8</u>	White			
Destination						
Docyment Source:	Document Te	ble	*			
Size:	Letter(8.5 x 11	in.)	*			
Orientation:	0 🖾	0 🖾				
Resolution:	300	♥ dpi				
Image Adjustments						
Threshold:			110	]		
Pre-						
	/iew	Scan	1			

- 4. Choose Office Mode from the Mode list at the top of the EPSON Scan screen.
- 5. Choose Black&White as the Image Type setting.
- For the Document Source, select Document Table if you're scanning a single sheet. If you're using the automatic document feeder, select ADF - Single-sided or ADF - Double-sided as appropriate for your document.
- 7. Select Auto Detect as the Size setting, if that option is available, or select the actual size of your document.

**Note:** For best results, click the **Preview** button and then draw a marquee around the edges of the text to eliminate borders on the page. If you're scanning multiple pages with the automatic document feeder, you'll have to reload the first page before scanning.

- 8. Make sure the Orientation setting matches the orientation of your document on the scanner.
- 9. Select 300 dpi as the Resolution.
- 10. Click the Scan button.

11. When your document finishes scanning, close EPSON Scan to view it in ABBYY FineReader.

**Note:** If you have trouble accurately converting your document, click the **Preview** button before scanning and adjust the **Threshold** slider so that the image appears neither too light nor too dark.

- 12. Click the **Save** button. Choose a location, file name, and one of the following text file types:
  - rtf: for editing in Microsoft Word<sup>®</sup> and other applications
  - txt: for an unformatted text file that you can open in many different programs

**Note:** You can also click the arrow next to the **Save** button to send the text to Microsoft Word or Excel.<sup>®</sup> For more information about ABBYY FineReader, open the Help menu at the top of the screen.

After saving your scanned document as a text file, you can use your word processing program to modify the text as needed, e-mail it, incorporate it into a report, or print it.

# Using Professional Mode to Customize Your Scans

Follow the example below to scan a photo or printed document using Professional Mode.

**Note:** This example shows you how to scan one image at a time. You can also place several images on the scanner and scan them; see page 39. To scan slides and film, see page 48.

- 1. Place your photo or document on the scanner (see page 11).
- 2. Open your imaging application, then choose the Import (or Acquire) option in the application and select Epson Expression 10000XL.

**Note:** If you are using Windows Vista or XP and choose WIA-EPSON Expression 10000XL, certain features won't be available.

You see the EPSON Scan dialog box:

3. Select **Professional Mode** from the Mode list at the top of the screen.

**Note:** You may have to scroll down to see some of the settings referred to in the following steps.

- 4. Under the Original settings, choose the Auto Exposure Type: Photo to optimize exposure for photos, or Document to optimize exposure for printed material.
- 5. Under the Destination settings, choose a color depth from the Image Type menu:
  - 48-bit Color for the highest quality color scans

**Note:** If you choose this option, make sure your application supports 48-bit image files (Photoshop Elements does not support 48-bit color). This option significantly increases your file size.

■ 24-bit Color for high quality color scans

Mode:
Professional Mode
Current Setting
Save Delete
Reflective
Document Table
Photo
48-bit Color 🗸
300 🗸 dpi
₩ 12.20 H 17.20 in. V
Original Y
Reset -
Scan Rose

- Color Smoothing to reduce color variations in an image without lessening its sharpness
- 16-bit Grayscale for the highest quality scans of black-and-white photos or images

Note: Make sure your application supports 16-bit grayscale.

- **8-bit Grayscale** for high quality scans of black-and-white photos or images
- Halftone if you want to create pre-press scans of grayscale images; click 
  to select an appropriate screening pattern for your print vendor
- Black & White for text or line art

Click  $\oplus$  (Windows) or  $\blacktriangleright$  (Macintosh) to see more options, then choose **Best** or **Draft** for the Scanning Quality.

- 6. Choose a resolution setting (50 to 12800 dpi). See page 30 for guidelines.
- 7. Click the **Thumbnail** checkbox if you want to use the Thumbnail preview (see page 15). Then click **Preview** to see a preview of your scan.
- 8. Click and drag within the preview image, then select the area you want to scan. Or do one of the following:
  - If you're using the Full-size preview screen, click the Auto locate button in the preview window to automatically select your entire image.
  - If you know how you plan to use the final image (for example, if you're printing it as a 4 × 6 photo), you can create a marquee with exactly the right proportions. On the main screen, select a **Target Size** (under the Destination settings), then click the <u>icon</u> icon to choose either portrait or landscape orientation. Move and resize the marquee as needed.

You can also click 
⊕ (Windows) or ► (Macintosh) to see more options, then
type in the width and height, or scale the
image with a percentage. If Trimming is
set to On, your image is cropped to fit

_ Target Size:	4 x 6 in.	- <u>A</u>
W	4.00 H 6.00 in.	- 8
Scale:	94 📩 %	
Trimming:	C Off 📀 On	

the target size. If it is Off, the proportions of your original image will not be changed.

Color and exposure adjustments are automatically applied to the marqueeselected area (unless you've turned off **Continuous auto exposure**; see page 32). For best results, make sure only the part of the image you want to scan is selected (do not include borders or white space around the image).

- 9. Use the following Adjustment settings on the main screen to modify your image as necessary.
  - Auto Adjust If you've turned off **Continuous auto exposure** (see page 32), click this button to apply your color management settings and have the software determine the best exposure and color balance for your scan. (If **Continuous auto exposure** is turned on, clicking this button has no effect.)
  - Histogram Adjustment Click this button to adjust the highlight, shadow, and gamma input levels.

Tone Correction – Click this button to choose a preset tone curve for specific effects or to change the tone curve manually.

Image Adjustment – Click this button to adjust the color balance, saturation, brightness, and contrast settings.

Color Palette – Click this button to fine-tune the colors in your image.

For any of these settings, you can click **Reset** to go back to the default settings for your image. Click **Help** for more information about using these options.

- 10. To enhance the appearance of your image, select from the following options:
  - Select Unsharp Mask to sharpen the image.
  - Select **Descreening** to reduce or eliminate moiré patterns.
  - Select Color Restoration to restore the color on a faded photograph.

- Unsharp Mas <u>k</u>		
Level:	Medium	*
Descreening		
Screen Ruling:	General	~
Colo <u>r</u> Restoration		
- Backlight Correction		
Level:	Medium	~
- Dust Removal		
Level:	Medium	*

- Select Backlight Correction to remove shadows on photos that have too much background light.
- Select Dust Removal to remove unwanted specks of dust.

For more information on using these options, see pages 33 to 35.

- 11. Click Scan.
- 12. When scanning completes, click **Close** to exit EPSON Scan and view the scanned image in your imaging application.

## Scanning to a File With EPSON Scan

To speed up your workflow, you can use EPSON Scan in "standalone" mode to scan images directly to a file on your computer's hard drive.

- 1. Start EPSON Scan:
  - Windows:

Double-click the EPSON Scan icon on your desktop.

Or select Start or , select Programs or All Programs, select EPSON Scan, then select the EPSON Scan icon.

■ Macintosh: Open the Applications folder, and then click EPSON Scan.

**Note:** If you have multiple scanners installed, you are prompted to choose your scanner. Click **EPSON Expression 10000XL** and click **OK**.

- 2. Choose a mode from the Mode list at the top of the EPSON Scan screen. See page 12 for a description of the modes.
- 3. Make appropriate settings for your mode. For examples of how to make settings, see these sections:

*

- Home mode on page 19
- Office mode on page 21
- Professional mode on page 23

- 4. Click Scan. You see this screen:
- 5. Select the location where you want to save your scanned image.
- 6. Type a name for your file in the Prefix field, then choose an image type and click OK.

**Note:** If you're saving the file in JPEG format, be sure to select an appropriate compression ratio for your image. For details on file format settings, click the **Help** button.

💪 File Save Se	ttings		$\mathbf{X}$
_Location			
My Docume	ents		
O My Pictures			
O Other:	Desktop		<u>B</u> rowse
File Name (Pref	ix + 3-digit number)		
Prefix:	img	Start <u>N</u> umber:	þ01 🗘
Image Format			
<u>T</u> ype:	JPEG (*.jpg)	~	Options
Details:	Compression Level: [16] Encoding: Standard		
🗌 Overwrite ar	ny files with the sa <u>m</u> e name		
Show this di	alog box before next scan		
🗹 Open image	folder after scanning		
0	K Cancel		Help

## Chapter 2 Getting the Most From Your Scanner

This chapter gives you information about improving the quality of your scanned images and making your workflow more efficient. Find out about:

- Selecting the best resolution for your image
- Managing colors
- Restoring color and enhancing images
- Batch scanning of multiple images
- Using the 🖄 Start button

## **Scanning Tips**

Getting the best scan possible depends on several factors, including the quality of your original and the resolution you select. The better your original is, the better your scan will be. To get the best possible scan, keep the document table clean, and make sure the document is flat against the glass surface. You can make many corrections in your scanning software (EPSON Scan, or LaserSoft Imaging SilverFast if you have the Photo version of the scanner). For additional photo retouching, use an image editing program such as Adobe Photoshop Elements.

## Selecting a Suitable Resolution

Resolution refers to how many dots per inch (dpi) your image contains. The best resolution for a scanned image depends on the type of image you're scanning and how you plan to use it.

For most images, use a scanning resolution that is approximately one third of your output resolution. For example, use a scanning resolution of 200 dpi if you want to print at 600 dpi. If you're scanning an image to view on-screen, choose a resolution of 96 dpi.

Type of scan	Resolution
Photograph	300 dpi
Text with images	400 dpi
Film or slides	300 to 2400 dpi
Line art	300 to 2400 dpi
Image for web	96 to 150 dpi
Text for OCR	300 dpi
Newspaper	150 to 300 dpi
Magazine	150 to 300 dpi

Follow the guidelines in this table for selecting a resolution:

#### Scaling (Resizing) Images

If you plan to enlarge your image, it's better to enlarge it by scanning at a higher resolution. If you change the image resolution or size in an application, you lose image quality. Keep this in mind when scanning small photos that you plan to enlarge, or when scanning slides and negatives.

## **Getting Color Accuracy**

If the colors in your scanned image don't match those in your original document, make sure you've selected an appropriate Document Type setting (Home Mode) or Auto Exposure Type (Professional Mode). In Professional Mode, try selecting an Image Type setting that offers greater color depth.

When scanning, it's important to marquee-select just the area you want to scan (see page 16). This lets the scanner software choose the optimal color and exposure settings for that part of the image. If there is a border around your image or if the document cover is in the scanning area, the exposure and colors in your scan may be altered.

#### Using Color Management

For the greatest accuracy in matching your monitor colors and the colors of your printed photos to the originals, you should use a professional grade monitor with a color management tool, such as MonacoEZcolor (included with your scanner). This software lets you build ICC profiles to calibrate your monitor, printer, and scanner and achieve consistent color across devices and paper types.

When using color management, do the following:

1. Open EPSON Scan, then click the Configuration button. You see this screen:

& Configuration	X
Preview Color Other	
O Color Control	
Continuous auto <u>e</u> xposure	
Display <u>G</u> amma:	1.8 🗘
() ICM	
Source (Scanner):	EPSON Standard
Target:	Adobe RGB
Display preview using mon	itor compensation
○ No Color Correction	
Auto Exposure Level	Becommended Value
	OK Cancel <u>H</u> elp

- 2. Select the ICM option (Windows) or ColorSync® option (Macintosh).
- 3. For the scanner Source, select the profile you created for your scanner. (If you're using the transparency unit, be sure to use a profile created specifically for scanning transparencies, not reflective paper documents.)

- 4. Unless you're using a specialized color space for your work, it is recommended that you select Adobe RGB as the Target. This provides a wide color gamut that works well for monitors, ink jet printers, and the majority of output devices.
- 5. If you are using Adobe Photoshop 5.0 or above, select **Display preview using** monitor compensation to match colors between images viewed in EPSON Scan and Photoshop. (Do not select this setting if you are using Photoshop Elements.)

If you are using Adobe Photoshop Elements, select Full Color Management under Color Settings on the Edit menu.

When you preview your image in EPSON Scan, click the Auto Adjust button to apply the color profiles you have selected. Before printing your image, be sure to turn off any color management settings in your printer driver software. See the manual for the application you're printing from for more information on using color management.

If you are not using ICC color profiles as described above, do the following instead:

- 1. Open EPSON Scan, then click the Configuration button.
- 2. Select the Color Control option to use EPSON Scan's built-in exposure and color adjustments.



- 3. Select **Continuous auto exposure** to automatically adjust the exposure and color settings when you preview an image in EPSON Scan. The settings are recalculated whenever you create, move, or resize a marquee in the preview screen (see page 17).
- 4. Choose a Gamma setting from 1.0 to 3.0 that matches your monitor. If you are not sure which setting to use, choose the default setting of 1.8.

## **Enhancing Image Quality**

EPSON Scan includes various adjustments that let you improve the quality of your images. For photos and film, you can restore the color of faded images, digitally remove specks of dust, correct backlighting, and (for film only) you can reduce the appearance of graininess in your images. Other adjustments let you sharpen your images, or eliminate moiré patterns when scanning magazines, newspapers, or similar printed materials.

## Using Color Restoration

If you have photos or film images that have become faded, you can use Color Restoration to correct their colors.

- 1. Preview your image, then marquee-select the area you want to scan.
- 2. In Home Mode, select **Color Restoration**. In Professional Mode, scroll down to the Adjustments section of the screen and then select **Color Restoration** as shown below:

Adjustments	
	Reset
+ Unsharp Mask	
+ Descreening	
Color Restoration	
+ Backlight Correction	
+ Dust Removal	

**Note:** When using Color Restoration, be sure to select settings appropriate for a color photograph (for example, do not select Grayscale as the Image Type). In Professional Mode, you must select Photo (not Document) as the Auto Exposure Type.

Depending on the condition of your photos or film, the colors may not be restored exactly as you like. If necessary, click the Filmage Adjustment button to correct the colors manually.

## Using Unsharp Mask

If you have photographic images that look slightly fuzzy or indistinct, you can sharpen them by turning on the Unsharp Mask adjustment in Office or Professional Mode. (In Home Mode, this adjustment is automatically applied and you cannot deselect it.)



- 1. Preview your image, then marquee-select the area you want to scan.
- 2. In Office Mode, select Unsharp Mask in the Image Adjustments section. In Professional Mode, scroll down to the Adjustments section and then select Unsharp Mask, as shown below:

Adjustments		
	1 ∓ 🖗 (	Reset
🗕 🗹 Unsharp Mas <u>k</u>		
Level:	Medium	*
+ Descreening	Low Medium High	
Colo <u>r</u> Restoration	1.020	
+ Backlight Correction		
+ Dust Removal		

**Note:** The Unsharp Mask Filter is not available if you've selected Color Smoothing, Halftone, or Black & White as the Image Type.

## Using Descreening

If you're scanning printed materials, such as magazines, postcards, or newspapers, or when scanning certain ink jet prints, use the Descreening Filter to reduce the appearance of moiré patterns in the image.



- 1. Preview your image, then marquee-select the area you want to scan.
- 2. In Home and Office Mode, select **Descreening** in the Image Adjustments section.

In Professional Mode, scroll down to the Adjustments section and then select **Descreening**, as shown below:



**Note:** The Descreening Filter is not available if Black & White is selected as the Image Type, or if the resolution is set to greater than 600 dpi.

You cannot see the effect of this filter on the preview screen. Check your results on the scanned image.

## Using Backlight Correction

If you have photographic images that are too dark because of backlighting, you can remove the shadows with Backlight Correction. This feature works in both Home and Professional Mode, but Professional Mode lets you control the level of correction you want to apply.



- 1. Preview your image, then marquee-select the area you want to scan.
- 2. In Home Mode, select Backlight Correction in the Image Adjustments section.

In Professional Mode, scroll down to the Adjustments section and then select **Backlight Correction**, as shown below:

Adjustments		
	1 =	Reset
🕂 🗌 Unsharp Mas <u>k</u>		
+ Grain Reduction		
Colo <u>r</u> Restoration		
Backlight Correction		
Level:	Medium	*
+ Dust Removal	Low Medium High	

3. In Professional Mode, click 
⊕ (Windows) or 
► (Macintosh), then choose a level to increase or decrease the effect.
#### Using Dust Removal

You can use the Dust Removal feature to digitally remove unwanted specks of dust from photos or from film (if you have the optional TPU). This feature works in both Home and Professional Mode, but Professional Mode lets you control the level of correction you want to apply.



- 1. Before scanning, make sure the document table is clean and remove as much dust as possible from your photos.
- 2. Preview your image, then marquee-select the area you want to scan.
- 3. In Home Mode select **Dust Removal** in the Image Adjustments section. In Professional Mode, scroll down to the Adjustments section of the screen and then select **Dust Removal** as shown:



4. In Professional Mode, click 
⊕ (Windows) or 
► (Macintosh) and then choose a Level to increase or decrease the effect.

**Note:** You cannot see the results of using Dust Removal on the preview screen. Check your results on the scanned image.

#### Using Grain Reduction

You can use the Grain Reduction feature to reduce the appearance of graininess in your scanned film. This feature is available only in Professional Mode.

- 1. Preview your image, then marquee-select the area you want to scan.
- 2. In Professional Mode, scroll down to the Adjustments section and then select Grain Reduction.

Adjustments		
	1	Reset
+ Unsharp Mas <u>k</u>		
- Grain Reduction		
Level:	Medium	*
Colo <u>r</u> Restoration	Low Medium High	
+ Backlight Correction	<u>Inign</u>	
+ Dust Removal		

3. Click 
 (Windows) or 
 (Macintosh) and then choose a Level to increase or decrease the effect.

**Note:** You cannot see the results of using Grain Reduction on the preview screen. Check your results on the scanned image.

## **Batch Scanning Photos and Film**

If you're working with photos or film, you can place multiple images on the scanner, and then scan them all at once (instead of one-by-one) with EPSON Scan. This lets you quickly digitize large numbers of images.

**Note:** If you have the Photo version of the scanner, you can use the LaserSoft Imaging SilverFast Job Manager for high-capacity batch scanning. For details, see the on-screen guide included with the software.

To scan multi-page documents, such as reports, use the optional ADF (see page 55).

#### **Placing Your Photos**

1. Raise the scanner cover and place your photos face-down on the glass. Be sure to leave a space of at least 3/4 inch (20 mm) between each of the photos.

**Note:** If you're scanning film, see page 48 for instructions on using the transparency unit and film holders.



2. Close the document cover, being careful not to move your photos.

**Tip:** If the edges of your photos don't scan properly, move them in about 1/16 inch (1.5 mm) from the edges of the glass.

#### Previewing Your Images in Thumbnail Mode

When scanning multiple images, you can use the Thumbnail preview screen to locate each image automatically. (To select multiple images in the Full-size preview screen, see page 18.) Follow these steps:

1. Start EPSON Scan and follow the instructions on page 23 (for photos) or on page 51 (for film) to make the correct settings for your document.

**Note:** You can scan your images in either Home or Professional Mode, but Professional Mode is recommended for greater control over the results.

- Click the checkbox below the Preview button to select Thumbnail as the type of preview screen you want to use.
- 3. Click the **Preview** button to view previews of all your images.



Mirror image	C Preview	Thumbnail Full Size		Enlarge
Rotate image				preview
Erase marquee			<u></u>	
Select all			2	
		2 00 Int		
	▶ <b>⊘</b> 4 0.0	-10		
	-0	<b>₽</b> 3		
	Help			
	⇔4.30 in. \$6.26 ii	n. 1290 x 1878 pixels 6	.93 MB R: G: B:	

You see this screen:

- 4. Click and drag within each image to select just the area you want to scan (see page 15 for details on marquee-selecting images). For best results, avoid including borders in your images. This enables EPSON Scan to apply the optimal exposure and color balance settings (see page 31).
- 5. To see an enlarged version of an image, click the image to select it (selected images are outlined in blue). Then click the Full Size tab.
- 6. Apply any color adjustments or filters, as needed.

**Note:** To apply the same image quality adjustments to all images at once, click the **All** button, then make any desired adjustments.

- 7. Do one of the following:
  - To scan all your photos, click Scan.
  - To select individual photos for scanning, clear the checkmarks from any photos you don't want to scan, then click Scan. Only checked photos are scanned.



8. When scanning completes, click **Close** to exit EPSON Scan.

Each photo appears as a separate image in your imaging application (or is saved as a separate file on your hard drive).

## Scanning With the 🖄 Start Button

The ≇ Start button opens EPSON Scan—or in Windows, you can set it to open another application of your choice. If you set it to open Photoshop Elements, EPSON Scan launches automatically after Photoshop opens. If you choose another program, you must start EPSON Scan manually after opening the program.



You can assign multiple applications to the  $\mathcal{D}$  Start button, but you'll have to decide which program to launch after pressing it. To avoid this, do not assign more than one application to the  $\mathcal{D}$  Start button.

To set up the  $\checkmark$  Start button, follow the instructions below for your system.

Note: You cannot choose which application to open on Macintosh systems.

#### Windows Vista or XP

Follow these steps to assign an application to the 2 Start button in Windows Vista or XP:

1. Do one of the following:

Windows Vista: Click (2) > Control Panel > Hardware and Sound or click (2) > Settings > Control Panel.

Windows XP: Click Start > Control Panel > Printers and Other Hardware or click Start > Settings > Control Panel.

- 2. Select Scanners and Cameras.
- 3. Do one of the following:

Windows Vista: Select Expression 10000XL and click the Properties button. When you see the User Account Control screen, click Continue.

Windows XP: Right-click the Expression 10000XL icon, and then click Properties.

4. Click the **Events** tab. You see this window.

EPSON Expression 10000XL Properties	? ×
General Events Color Management	
Choose an event below, then select the action to take when the event occurs.	nat
Select an event: Start Button	
Actions	- I
Start this program: Photoshop Elements	I
C Prompt for which program to run	
◯ <u>I</u> ake no action	
C Save all pictures to this folder:	
C:\Documents and Settings\TEMP600\My Docum	
Create a subfolder using today's date	
Delete pictures from camera after saving them	
OK Cancel Appl	y

- 5. Make sure the Start Button is selected in the Select an event box.
- 6. Click Start this program, select a program from the list, click Apply, then click OK.

**Note:** If the program you want to use is not listed, open it and then follow these steps again. If it is still not listed, it cannot be opened using the 2 Start button.

You can disable the 2 Start button by clicking the **Take no action** checkbox on the Events tab.

#### Windows 2000

For Windows 2000, follow these steps to set up the ⊈ Start button:

- 1. Double-click the Scanners and Cameras icon in the Windows Control Panel.
- 2. Select Epson Expression 10000XL and click the Properties button.
- 3. Click the **Events** tab. You see the window to the right.
- Make sure Start Button appears in the Scanner events box, then deselect any applications you don't want to use in the Send to this application list. Leave checked only the application(s) you want to assign to the ⊈ Start button.
- Click Apply, then click OK to close the Epson Expression 10000XL Properties window, then click OK again to close the Scanners and Cameras Properties window.

**Note:** You can disable the *⊈* Start button by clicking the **Disable device events** checkbox on the Events tab.

SON Expression	on 10000XL Properties	?:
General Even	ts Color Management	
➢ EF	SON Expression 10000XL	
Scanner <u>e</u> ven	ts	
Start Button		•
Send to this ap	oplication:	
🗆 💪 EPSOR	N Scan	
De Photos	hop Elements	
ų.		
☐ <u>D</u> isable de	vice events	
	OK Can	cel Apply

# Chapter 3 Using Optional Equipment

There are three options available for the Epson Expression 10000XL:

- Transparency unit (B12B813362), page 46
- Automatic document feeder (B813212), page 55
- Network Image Express interface card (B12B808393), page 63

Note: If you have the Photo version of the scanner, the transparency unit is included.

You can purchase these accessories from an Epson authorized reseller. To find the nearest reseller, call 800-GO-EPSON (800-463-7766). Or you can purchase online at www.epsonstore.com (U.S. sales only) or www.epson.ca (Canadian sales).

# **Transparency Unit**

The transparency unit (B12B813362) lets you scan transparent materials—35 mm slides, filmstrips, and negatives,  $4 \times 5$  inch film, medium format (120/220) film, and nonstandard film sizes up to  $12.2 \times 16.5$  inches (309 × 420 mm). To switch from scanning transparent materials to ordinary paper documents, see page 54.

**Note:** The transparency unit is optional for the GA version of the Expression 10000XL. It is included with the Photo version.

#### Unpacking the Transparency Unit

Make sure that all of the following items are included in the transparency unit box. If any items are missing or damaged, contact your Epson dealer, or contact Epson at (562) 276-4382 (in the United States) or (905) 709-3839 (in Canada). Keep all the packing materials so you can use them for storage when you are not scanning transparencies.



#### Installing the Transparency Unit

- 1. Make sure the scanner is turned off, then unplug the power cord from the scanner.
- 2. Fully open the scanner's document cover, then lift it straight up.

3. Lower the transparency unit onto the scanner, so that the pins fit into the holes as shown.

4. Use a coin to turn the transportation lock to the Unlock position.





- 5. Close the transparency unit.
- 6. Connect the transparency unit cable to the scanner's OPTION port, then tighten its screws.



#### Using the Transparency Unit

Before using the transparency unit (TPU), you need to remove the reflective document mat and make sure the glass on both the document table and the TPU is clean.

- 1. Open the transparency unit.
- 2. Grasp the white reflective document mat by its top edge and slide it upward to free the bottom edge of the mat.
- 3. Lower the mat slightly to free the tabs at the top edge, then remove the mat.



- 4. Place the mat in the storage pocket located on top of the TPU.
- 5. Make sure the glass on the scanner's document table and on the TPU is completely clean and free of dust. If necessary, use a soft cloth to wipe it clean.



**Caution:** Never spray glass cleaner directly on the document table. Always spray it on a cloth first and then wipe the glass.

6. Place the transparency guide at the back edge of the document glass, so that its alignment pins fit into the holes as shown.



#### Placing Standard Film Sizes on the Scanner

Use the film holders that came with the transparency unit to scan 35 mm slides, filmstrips, negatives,  $4 \times 5$  inch film, and medium format (120, 220 and  $6 \times 12$  cm) film.



1. Place the film holder on a flat surface. Open its cover (if it has one), then load the film with its shiny side face-down and the film emulsion layer face-up.



 $4 \times 5$  inch film



Medium format film

2. Make sure the transparency guide is in place at the back edge of the document glass (see page 49). Then place the film holder on the document glass, aligning the arrow marks as shown.

When scanning large numbers of images, you can place a second film holder on the scanner next to the first one. The holders can be for different sizes of film (unless



you plan to scan 35 mm slides using the Thumbnail preview screen; see page 52).

3. Close the transparency unit and scan as described on page 51.

**Note:** If the transparency unit is not closed, you will get an error message and be unable to scan.

#### Placing Nonstandard Film Sizes on the Scanner

You can scan film in nonstandard sizes up to  $12.2 \times 16.5$  inches ( $309 \times 420$  mm). Follow these guidelines:

- 1. Make sure the transparency guide is in place at the back edge of the document glass (see page 49).
- 2. Set your film directly on the document glass, with the shiny side face-down and the film emulsion layer face-up. Align the film with the edge of the transparency guide, as shown.
- 3. Close the transparency unit and scan as described in the next section.

**Note:** When setting film directly on the glass or using film holders other than

those that came with the scanner, be sure to adjust the focus (see page 52).

#### Scanning Your Film

You can scan your film in either Home Mode or Professional Mode. For greater control over your scanned images, choose Professional Mode.

**Note:** Be sure to select the correct Document Type (in Home Mode) or Film Type (in Professional Mode): **Positive Film**, **Color Negative Film**, or **B&W Negative Film**.

Also, be sure to adjust the focus if you're placing your film directly on the glass (instead of in a holder) or are using film holders other than those that came with the scanner. See page 52.

If you're using Professional Mode, follow these steps:

1. Open your imaging application, then choose the Import (or Acquire) option in the application and select Epson Expression 10000XL.

**Note:** If you are using Windows Vista or XP and choose WIA-EPSON Expression 10000XL, certain features won't be available.

The EPSON Scan dialog box opens.

2. Select **Professional Mode** from the selection box at the top of the screen.

**Note:** You may have to scroll down to see all of the settings.

3. Under the Original settings, select Film as your Document Type, and then select the correct Film Type (Positive Film, Color

💪 EPSON Scan		
EPSON Scan	Mode: Professional Mode	
⊱Settings N <u>a</u> me:	Current Setting	Select Professional Mode
Original		
Document Type:	Film 👻	
Eilm Type:	Color Negative Film 👻	
Destination		
+ Image Type:	48-bit Color 👻	
Resolution:	300 🛩 dpi	Scroll down
Document Size:	₩ 12.20 H 16.50 in. 👻	to see more options
+ Target Size:	Original	options
Adjustments	~	

Negative Film, or B&W Negative Film).

- 4. Under the Destination settings, choose a color depth from the Image Type menu:
  - 48-bit Color for the highest quality color scans

**Note:** If you choose this option, make sure your application supports 48-bit image files (Photoshop Elements does not support 48-bit color). This option significantly increases your file size.

■ 24-bit Color for high quality color scans

- Color Smoothing to reduce color variations without lessening sharpness
- 16-bit Grayscale for the highest quality scans of black-and-white photos or images

Note: Make sure your application supports 16-bit grayscale.

**8-bit Grayscale** for high quality scans of black-and-white photos or images

Click  $\boxdot$  (Windows) or  $\blacktriangleright$  (Macintosh) to see more options, then choose **Best** or **Draft** for the Scanning Quality.

- 5. Choose a resolution setting (50 to 12800 dpi). See page 30 for guidelines.
- 6. If you're scanning 35 mm slides, you can select **Thumbnail** as the type of preview screen you want to use. This locates each image automatically, speeding up your workflow (see page 39).

Preview		<u>S</u> can	
Ihumbnail			
Help Conf	iguration		lose

For all other types of film, make sure the Thumbnail checkbox is not selected.

- 7. Click the Preview button to see previews of your images.
- 8. Click and drag within each image to select just the area you want to scan. For best results, avoid including borders in your image. This enables EPSON Scan to apply the optimal exposure and color balance settings (see page 31).
- 9. If you're not using the film holders that came with your TPU, you'll have to reset the focus. Click the All button (to select all the images) or click a specific image to adjust, and then do one of the following:

If you've placed your film directly on the document glass, click the Manual focus button on the preview screen, set the focus position to 0.0, and then click OK.

- 10. Use these Adjustment settings (on the main screen) to modify your images as necessary.
  - Auto Adjust If you've turned off Continuous auto exposure, click this button to apply your color management settings and have the software determine the best exposure and color balance for your scan. (If Continuous auto exposure is turned on, clicking this button has no effect; see page 31.)



Histogram Adjustment – Click this button to adjust the highlight, shadow, and gamma input levels.



Image Adjustment – Click this button to adjust the color balance, saturation, brightness, and contrast settings.

Color Palette – Click this button to fine-tune the colors in your image. 

For any of these settings, you can click **Reset** to go back to the default settings for an image. Click Help for more information about using these options.

- 11. To enhance the appearance of your images, select from the following options:
  - To sharpen an image, select Unsharp Mask.
  - To reduce the appearance of graininess in your film, select Grain Reduction.
  - To correct the color on faded photos, select Color Restoration.

Adjustments		
	*	Reset
🛨 🗌 Unsharp Mas <u>k</u>		
+ Grain Reduction		
Colo <u>r</u> Restoration		
+ Backlight Correction		
+ Dust Removal		

■ To remove shadows on images that have too much background light, select Backlight Correction.

To digitally remove unwanted specks of dust, select Dust Removal. 

Click 
⊕ (Windows) or 
▶ (Macintosh) next to each setting and then choose a Level to increase or decrease the effect. For more information about these options, see page 33.

12. Click Scan.

13. When scanning completes, click **Close** to exit EPSON Scan and view the scanned images in your imaging application.

#### Scanning Paper Documents

If you want to scan an ordinary paper document while leaving the transparency unit installed, follow these steps.

1. Remove the transparency guide.



- 2. Insert the reflective document mat, top edge first, being careful to keep the mat's white surface from getting caught under the frame of the TPU.
- 3. Insert the tabs along the bottom edge of the mat to hold it in place.
- 4. Scan your document, following the instructions in Chapter 1 for the mode that you're using.

**Note:** If you're scanning in Professional Mode, be sure to select **Reflective** as your Document Type.



## **Automatic Document Feeder**

The optional automatic document feeder (B813212) lets you feed multi-page documents into your scanner. You can use it to scan single- or double-sided pages. The document feeder is particularly useful for OCR (optical character recognition), or for creating an image database.

#### Unpacking the Automatic Document Feeder

When you unpack your automatic document feeder, make sure you have the parts shown below. If any items are missing or damaged, contact your Epson dealer, or call Epson at (562) 276-4382 (in the United States) or (905) 709-3839 (in Canada).



#### Installing the Automatic Document Feeder

**Note:** The automatic document feeder (ADF) is heavy, so be sure to have someone help you with this procedure. Also, because the document feeder is large, leave adequate space around the scanner for handling it.

- 1. Make sure your scanner is turned off, then unplug the power cord from the scanner.
- 2. Fully open the scanner's document cover, then lift it straight out.

- 3. Insert the installation screws that came with the ADF into the holes in the back of the scanner, then secure them with the included screwdriver tool.
- 4. Attach the two smaller feet to the ADF as shown.







5. Mount the ADF on the installation screws, as shown.

**Warning:** The ADF is heavy. Ask for assistance when lifting it.

6. Twist the knobs onto the ends of the screws and tighten them using the screwdriver tool.

- 7. Attach the ADF cable to the scanner's **OPTION** port, then tighten its connector screws.







- 8. Make sure the high-speed/ low-speed switch is set to the circular mark (for high-speed scanning) as shown.
- 9. Close the ADF.



#### Loading Pages in the Automatic Document Feeder

The ADF can hold up to 100 pieces of paper, based on a paper weight of 55 g/m<sup>2</sup>, up to a total thickness of about 1/2 inch (12 mm). If you're using 20 pound bond paper, it's somewhat thicker and heavier (75 g/m<sup>2</sup>), so you won't be able to load quite as many sheets. Use the marking on the side of the tray as a guide, as shown:



The ADF accepts the following sizes of paper, in weights from about 13 to 34 pounds letter-size (50 to 127 g/m<sup>2</sup>):

U.S. paper sizes	International paper sizes
Ledger or tabloid (11 $\times$ 17 inch) Legal (8.5 $\times$ 14 inch) Letter (8.5 $\times$ 11 inch) Executive (7.5 $\times$ 10 inch)	A3 (297 × 420 mm) B4 (250 × 353 mm) A4 (210 × 297 mm) B5 (176 × 250 mm) A5 (148 × 210 mm)

Before loading the ADF, make sure the document:

- Has no wet ink on it.
- Has no holes or no cut-out areas.
- Is not ripped or wrinkled.
- Has no staples or other objects attached that may damage the feeder.
- Has no folds near the edge (within 1/4 inch of the edge).
- Is not a multipart form.
- Is not bound.
- Has no carbon coating.

Follow these steps to load a document:

1. Arrange the pages of your document into a stack. If necessary, slide the edge guide out of the way, then place the stack face-up on the ADF's input tray. Insert it short end first until it meets resistance. Do not force it into the ADF.



2. Slide the edge guide flush against the stack, but not too tightly. If your pages are long, you may need to extend the paper support.



3. Scan your document as described in the next section.

**Note:** Pages are fed from the top and ejected face-down, keeping them in their original order.

#### Scanning Your Document

You can scan your document in either Office Mode (for text and business documents) or Professional Mode (for photos and other graphics). See page 21 for instructions on scanning a document for OCR.

**Note:** Do not feed valuable photographs or artwork into the ADF; misfeeding could result in wrinkling or damage. Instead, place such items individually on the scanner glass.

To scan an individual document while the ADF is attached, just lift the ADF and place your document face-down on the glass. Select **Document Table** under the Document Source option in EPSON Scan. Do not open the ADF while scanning, or you'll get an error message.

See Chapter 1 for basic scanning instructions, and follow these guidelines:

- For the Document Source setting, select ADF Single-sided or ADF - Double-sided as appropriate for your document. Make sure you haven't left any documents on the scanner glass.
- When scanning double-sided documents, you can automatically orient the front and back images of each page the same way (right side up) after scanning. Click the Configuration button, select the ADF Double-sided tab, and choose Match the direction of front and back images.
- If you want to scan only part of each page, load the first page only. Click the **Preview** button. The first page is scanned and ejected. Adjust the marquee in the Preview area to select just the area you want to scan (see page 16), then load your entire document (including the first page). When you click **Scan**, the scanner scans only the selected area for all pages of your document.
- When you scan multi-page documents and save them as one PDF or Multi-Tiff file, you can change the order, rotate, or delete pages as necessary before saving them. Click Edit page after you finish scanning, then use the icons to edit as necessary. For more information, see your on-screen *Reference Guide*.
- You can scan documents whose pages vary in length, but they must all be the same width, and you cannot preview them. After arranging your documents into a stack, hold the stack upright and tap it several times on your desk to even up the bottom edge. Load the stack into the scanner face-up, bottom edge first.

In Office Mode, set the Document Size setting to Auto Detect. Scan your document by clicking the Scan button (do not click Preview).

#### **Clearing Paper Jams**

If a paper jam occurs, follow these steps to clear it:

1. Open the ADF to determine where the paper jam is located.

2. If pages jammed while feeding, open the cover on the left and slowly pull out the jammed pages from the top or bottom.

**Note:** Pull out jammed pages slowly to avoid tearing them.



3. If pages jammed while ejecting, open the cover on the right and remove the pages as shown.

**Note:** Pull out jammed pages slowly to avoid tearing them.



4. Open the cover on top of the ADF and check for any pages inside.



## **Network Image Express Interface Card**

This section explains how to install the optional Network Image Express interface card (B12B808393) in your scanner.

#### Setting Up Client Computers

Before connecting the scanner to your network, make sure any computer you want to use for scanning is set up properly. Check that:

- an Ethernet network card is installed in the computer
- the computer is configured to use the TCP/IP network protocol
- your scanner software is installed (see the *Start Here* sheet for instructions)

For instructions on installing your computer's card, see the manual that came with the card. For instructions on setting up TCP/IP, see the Expression 10000XL Reference Guide on your computer.

#### Installing the Card in Your Scanner

- 1. Turn off the scanner and disconnect the power cord and any cables.
- 2. Remove the two screws securing the shield plate to the scanner's optional interface slot, and then remove the plate. Keep the screws and shield plate in case you want to reinstall them later.
- 3. Fully insert the Network Image Express card in the slot, and tighten its screws.

**Caution:** Do not insert the card with the scanner turned on, or you could damage the card or the scanner.



- 4. Plug in the scanner and reconnect its cables.
- 5. Initialize the card by holding down its **RESET** button (to the right of the connector) while you turn on the scanner. Continue holding down the button for about 10 seconds, until the card's red and green lights (to the left of the connector) turn on.

Now you're ready to connect the scanner to your network.

#### Connecting the Scanner to Your Network

- 1. Turn off the scanner.
- 2. Connect an Ethernet cable (Category 5 unshielded twisted-pair) to the RJ-45 jack on the card, and then connect the other end to a hub on your network.

**Note:** To prevent corruption of scanned data, you must use a Category 5 cable. Do not connect the scanner directly to your computer; instead, connect it to the network through an existing hub.



- 3. Turn on the scanner.
- 4. Check the lights on the card. Initialization is in progress while the red and green lights are on. When the yellow light comes on, initialization is complete.
- 5. Assign the card an IP address. See the *Network Image Express Card User's Guide* for instructions. Be sure to note the address, as you'll need it in the next section.

#### Setting Up EPSON Scan

Follow these steps to use the EPSON Scan Settings utility to enable network scanning.

- 1. Start EPSON Scan Settings:
  - Windows: Click Start or , point to Programs or All Programs, point to EPSON Scan, then select EPSON Scan Settings.
  - Macintosh OS X: Open the Applications folder, open the Utilities folder, then click EPSON Scan Settings.

You see this screen:

- 2. Select your scanner from the Select Scanner list.
- 3. Select Network as the type of connection.
- 4. Enter the Network Image Express Card's IP address or host name in the Network Scanner Address field.

EPSON Sca	n Settings	;		
<u>S</u> elect Scan	ner: EPS	ON Expres	sion 10000XL	~
Connection				
O Local		0	<u>N</u> etwork	
Network Sca	anner Addres	s		
Scan	ner Name	Address		
		_		
	<u>A</u> dd		<u>D</u> elete	
	<u>E</u> dit		<u>R</u> efresh	
Scanner Sta	atus			
	t tting (second	ls):	3(	
ОК		Cancel		Help

5. Click **Test** to check the connection.

If everything works properly, you see this message:

If you have any problems, see the Troubleshooting section in the *Network Image Express Card User's Guide*.

6. Click OK to save your settings.

<b>€</b>	he connection test was sucessful. letwork scanner is available.	
	Scanner: EPSON xxxxxxxxx Option: Automatic Document Feeder	

Now you are ready to scan. See Chapter 1 for instructions on using the EPSON Scan software.

**Note:** Do not use the Fast User Switching function while scanning (Macintosh OS X 10.3 or later).

# Chapter 4 Maintenance

To protect your scanner and ensure that it continues to operate well, follow the instructions in these sections:

- Transporting the scanner
- Cleaning the scanner

**Caution:** Never open the scanner case. If you think repairs or adjustments are necessary, consult your dealer or contact Epson.

### **Transporting the Scanner**

Always lock the transportation lock when you transport the scanner over a long distance or store it for an extended time.

1. If you're using the ADF or TPU, remove it from the scanner and replace the scanner's cover.

**Warning:** Make sure you have someone help you lift the automatic document feeder.

- 2. Turn on the scanner and wait about 30 seconds for it to initialize. When the **Ready** light stops blinking and remains green, turn the scanner off.
- 3. Push down the transportation lock at the back of the scanner to the Lock position.
- 4. Place the scanner in its original box, or a similar box with enough packing material to prevent movement inside the box.



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## **Cleaning the Scanner**

To keep your scanner operating at its best, clean it periodically.

1. Press the  $\Phi$  power button to turn the scanner off, and unplug the power cord.

Caution: Always unplug the scanner before cleaning.

2. Use a soft, damp cloth and mild detergent to clean the outer case.

**Caution:** Be careful not to spill liquid or let water get into the scanner mechanism or electronic components. This could permanently damage them.

Never use alcohol, thinner, or corrosive solvent to clean the scanner. These chemicals can damage the scanner components as well as the case.

3. Clean dust and smudges from the document table glass with a soft, dry cloth (a microfiber glass cleaning cloth is recommended). You can also use compressed air spray cleaner.

To remove grease, use pretreated lens or scanner wipes, or a small amount of glass cleaner on a soft cloth. Dry the document table glass afterwards.

**Caution:** Never spray glass cleaner directly on the document table. Always spray it on a cloth first and then wipe the glass.

Never use a harsh or abrasive brush or cleaning product to clean the document table. A damaged glass surface can decrease the scanning quality.

Avoid leaving photos on the scanner glass for extended periods of time, or residue from the photos may adhere to the glass.

# Chapter 5 Solving Problems

This chapter gives you the basics for diagnosing and solving problems. It also tells you how to uninstall your scanner software, and how to contact Epson in case you need help.

If the scanner's **Error** light is on or flashing, see "Checking the Status Lights" in the next section to determine the reason. Otherwise check for solutions in these sections:

- Scanner Problems
- Software Problems
- Quality Problems

If you're unable to solve the problem yourself, see "Where To Get Help" on page 79.

**Tip:** It's a good idea to check Epson's support web site periodically for possible updates to your scanner software. Visit **epson.com/support** and check to see if there is new software available, free of charge, for downloading to your computer. Downloading instructions are posted for your convenience.

## **Checking the Status Lights**

You can diagnose some problems by checking the scanner's lights, as described below. If you don't find the answer here, see "Problems and Solutions" on page 71.



Light	Scanner Status
<b>Ready</b> light is on or flashing.	The green <b>Ready</b> light is on when the scanner is ready to scan. It flashes when scanning is in progress.
Error and Ready lights are both off.	Make sure your scanner is connected to a working outlet, then press the $\Phi$ power button.
Error and Ready lights are both on.	The scanner has received an incorrect command from your scanner software. Try scanning again. If the problem persists, try reinstalling your scanner software (see page 77).
Error and Ready lights are both flashing.	If you're using the automatic document feeder, there may be a paper jam. Clear any jammed paper as described on page 61, then close all open covers.
	If this doesn't solve the problem, there may be a problem with the fluorescent lamp, or another problem. Contact Epson as described on page 79.

## **Problems and Solutions**

Here are some troubleshooting tips if you're having trouble setting up your scanner, scanning, or getting the quality you want from your scans.

#### Scanner Problems

The Ready light doesn't come on or flashes.

- The Ready light flashes when scanning is in progress. If you are scanning a large file, wait for scanning to finish.
- Make sure the scanner power cord is securely plugged into the scanner and the power outlet, and that the scanner is turned on.
- Check that the power outlet is working and is not controlled by a wall switch or timer.
- If you're using the automatic document feeder or transparency unit, make sure its cable is connected to the OPTION connector in back of the scanner. Then restart your computer.
- If you're using the automatic document feeder, make sure a document is loaded, and pages are not jammed. If a jam occurs, remove the jammed pages as described on page 61.

# You see an error message when you try to scan.

- Check the cable connections, and make sure the scanner is turned on.
- If you have a USB connection, use the cable that came with the scanner. Try using a different USB port. If your scanner is connected to a USB hub, connect it directly to the computer's USB port.
- Check the Windows Device Manager. If you see a ! or ? mark, or the scanner appears as an Unknown Device, uninstall and reinstall EPSON Scan (see page 77).
- If necessary, uninstall and reinstall your software. See the instructions for uninstalling software on page 77.

# The scanner doesn't scan your image.

- Make sure the scanner is ready to scan. Wait until the Ready light stops flashing and remains on.
- Check the Windows Device Manager. If there are any Unknown Device icons, select them and click Remove or Uninstall.
- If you're using imaging software, such as Adobe Photoshop
   Elements, make sure you select
   EPSON Expression 10000XL as your scanner or import source.
- Make sure you have enough memory to scan your image. If you're scanning a large image or scanning at a high resolution, close any unnecessary programs. Try scanning at a lower resolution, or select part of the image to scan. If you still cannot scan, you may need to upgrade your RAM.
- If you're using the optional automatic document feeder, run EPSON Scan in Office Mode or Professional Mode, and select
   ADF - Single-sided or
   ADF - Double-sided as the Document Source. Also, make sure the original document is inserted face-up.

# Pages jam in the automatic document feeder.

Remove the jammed pages, following the instructions on page 61.

# The automatic document feeder is running too slowly.

Check the high-speed switch and make sure it's in the upper position (see page 57).

# You cannot scan film with the transparency unit.

- Make sure the reflective document mat is removed.
- Make sure the tranportation lock on the TPU is turned to the Unlock position (see page 47).

# The scanner doesn't start when you press the 2 Start button.

- In Windows, check the Events tab in the scanner's Properties window. Make sure Take no action or Disable device events is not selected.
## Software Problems

#### Some of the bonus software that came with your scanner doesn't work in Windows Vista.

You may need to upgrade the software. Contact the manufacturer as described on page 80.

#### EPSON Scan doesn't work properly.

- Make sure your system meets the minimum requirements listed on page 85.
- Check your computer's memory. If you're running other software at the same time, have many device drivers, or are scanning a large image, the computer may not have enough memory. (See your software and computer manuals.)
- Make sure your scanner software is correctly installed and set up. If necessary, reinstall it (see page 77).

#### You can't select ADF as the Document Source (Office Mode or Professional Mode).

Make sure the optional automatic document feeder is installed correctly and securely connected to the OPTION connector on the back of the scanner. If you need to reconnect it, restart your computer afterward.

#### When previewing a scan, the Thumbnail preview screen does not locate the image properly.

- Make sure you've selected the correct Document Type in EPSON Scan.
- Make sure the white part of the document cover (or the white ADF belt, if you're using the document feeder) is clean.
- If the edges of your image are light, they may not scan. Use the Full-size preview screen, or increase the size of the thumbnail cropping area (see page 15).

#### You can't scan multiple images.

- If you're using the Thumbnail preview screen, position photos or documents at least 3/4 of an inch apart.
- Make sure the application you are using supports multiple image scanning.

# The scanned image isn't the same size as the original.

You can't judge the size of the printed image by what you see on your screen. The image size settings in your scanner software determine the size of the printed image. Check the Target Size setting in EPSON Scan.

#### The file size is too big.

Select a lower resolution (dpi), or scan only part of the image.

## **Quality Problems**

Make sure your original photo or document is in good condition. If it's damaged, dirty, or wrinkled, these imperfections will show up in your scan. If the original looks okay, check for solutions in the sections below.

**Note:** You can use features such as Color Restoration, Backlight Correction, or Dust Removal to clean up your original images (see page 33).

#### The colors in your scanned image look different from the colors in the original document.

- Make sure the Image Type setting in EPSON Scan is correct. In Professional Mode, try selecting an Image Type setting that offers greater color depth (if your imaging application supports it).
- In Home Mode, select a Document Type that matches what you're scanning.
- Marquee-select only the area in your image that you want to scan. Avoid selecting any borders.

- You can adjust individual color tones in Professional Mode by using the Alistogram Adjustment Tone Correction, or Color Palette controls.
- Select suitable color control settings in EPSON Scan (see page 31).
- For the greatest color accuracy, use a color management tool such as MonacoEZcolor (included with your scanner).

**Note:** Your printer and monitor may not always match the colors in the original exactly, because the technologies produce color in different ways.

# Your scanned image is blank, or it's too light or too dark.

- Adjust the Brightness and Contrast settings in EPSON Scan.
- Make sure the document is facedown on the document table.
- If you're using the optional ADF, make sure the original document is inserted face-up.
- If scanning text or line art, select Black&White for the Image Type and adjust the Threshold setting.

#### Your scanned image is out of focus.

- Check the position and condition of your document. Make sure it is flat against the scanner's document glass. If only part of the image is blurred, your document may be wrinkled or warped.
- If you've placed transparent film directly on the document glass, or if you're using film holders other than those that came with the TPU, you may have to adjust the focus (see page 52).
- Try applying Unsharp Mask (see page 34).
- Make sure the document table glass is clean.
- Make sure the scanner is on a flat, stable surface, and your document didn't shift during scanning.



# The edges of the document aren't scanned properly.

- Don't place your document right up against the edges of the document table. Move the document about 1/16 of an inch away from the edges.
- If colors are patchy or distorted at the edges of the image, the document may be too thick, or there may be outside light interfering with the scan. If you are scanning without the cover, place paper over the edges of the document to block outside light.



#### Your image scans at an angle.

 Check the position of your document. Carefully align it with the edges of the document table. Try using the Thumbnail preview screen to scan your image (see page 15). The Thumbnail preview automatically corrects the angle of the image if it's tilted.

# Straight lines in the image come out jagged.

- Make sure the document is aligned with the edges of the document table.
- Try scanning your image at a higher resolution (dpi).

# A line of pixels is missing from the image.

- If a line of pixels is missing from the scanned image on your screen, the scanner sensor is not working correctly. See "Where To Get Help" on page 79.
- If a line of pixels is missing from your printouts, your printer may need cleaning or have some other problem. See your printer manual.

#### Moiré (cross-hatch) patterns appear in the scanned image.

- In EPSON Scan, select the Descreening checkbox. If you're using Professional Mode, select a Screen Ruling that matches your document.
- Make the image size slightly larger or smaller.

- Use a transparent sheet between the document and the document table to defocus the image slightly.
- Reposition the document so it's at a slightly different angle on the document table.

# You get poor character recognition during OCR scanning.

Use Office Mode, select Black&White for the Image Type, and adjust the Threshold setting.

## **Uninstalling Your Scanner Software**

If you need to uninstall EPSON Scan, follow the instructions below. Be sure to remove your software as described here before reinstalling it.

**Note:** To uninstall other software included with your scanner, see the online help documents included with those programs.

### Windows

- 1. Turn off the scanner and disconnect it from your computer.
- 2. Open the Windows Control Panel and select Uninstall a Program (Windows Vista), Add or Remove Programs (Windows XP) or Add/Remove Programs (Windows 2000).
- 3. Select EPSON Scan, and click Uninstall/Change (Windows Vista) or Change/Remove (Windows XP or 2000).

With Windows Vista, when you see the User Account Control screen, click Continue.

- 4. When a confirmation box appears, click Yes.
- 5. Follow the on-screen instructions to remove the software. If you see a message prompting you to restart the computer, select Yes, I want to restart my computer now, and click Finish.

See the Start Here sheet to reinstall your software.

## Macintosh

- 1. Turn off your scanner and disconnect it from your computer.
- 2. Insert your *Scanner Software* CD-ROM in your drive. If necessary, double-click the CD-ROM icon.
- 3. Open the COMMON\EPSON Scan folder.
- 4. Double-click the EPSON Scan Installer icon.
- 5. If the Authorization window opens, click the key icon, enter the Administrator's name and password, click OK, then click Continue.

6. After the initial screen, click Accept. You see this screen:

	EPSON Scan Installer	)
Select Uninstall	Uninstall	
	Click the Uninstall button to uninstall • Easy Install	
	Disk space available :> 4GB Approximate disk space needed : OK	
	Install Location Quit Rems will be uninstalled from the disk "Test" Uninstall	

- 7. Select Uninstall from the Easy Install list. Then click Uninstall.
- 8. Follow the on-screen instructions to uninstall the software. When you're done, click **Quit** to close the EPSON Scan Installer screen.

See the Start Here sheet to reinstall your software.

## Where To Get Help

If you are having problems with your scanner, see the contact information in the section below. If you are having problems with any of the software that came with your scanner, see page 80.

## Epson Technical Support

Epson provides these technical support services:

## Internet Support

Visit Epson's support website at **epson.com/support** and select your product 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 (Epson Expression 10000XL)
- Product serial number (located on the back of the scanner)
- 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 6 PM, Pacific Time, Monday through Friday
- Canada: (905) 709-3839, 6 AM to 6 PM, Pacific Time, Monday through Friday.

Toll or long distance charges may apply.

### **Purchase Supplies and Accessories**

You can purchase supplies and accessories from an Epson authorized reseller. To find the nearest reseller, call 800-GO-EPSON (800-463-7766). Or you can purchase online at www.epsonstore.com (U.S. sales) or www.epson.ca (Canadian sales).

## Software Technical Support

Use the resources listed below for help with software that came with your scanner:

Software	Telephone and Fax*	Online and E-mail
EPSON Scan	U.S.: (562) 276-4382	epson.com/support
	Canada: (905) 709-3839 6:00 AM to 6:00 PM, Pacific Time, Monday through Friday	
ABBYY FineReader Sprint	(510) 226-6717 9:00 ам to 6:00 рм, Pacific Time, Monday through Friday	www.abbyyusa.com support@abbyyusa.com
Adobe Photoshop Elements	(206) 675-6358 6:00 ам to 5:00 рм, Pacific Time, Monday through Friday (pay support)	www.adobe.com/support techdocs@adobe.com
Monaco Systems MonacoEZcolor	(914) 347-3300 9:00 ам to 5:30 рм, Eastern Time, Monday through Friday	www.xritephoto.com/ support
LaserSoft Imaging SilverFast (Photo version of the scanner only)	(888) 309-4215 9:00 ам to 5:30 рм, Eastern Time, Monday through Friday (pay support)	www.SilverFast.com support@SilverFast.com

\* Toll or long distance charges may apply.

## Appendix A Specifications

## Scanner

#### General

Scanner type Flatbed, color Photoelectric device Color CCD line sensor Effective pixels 29280 × 41280 pixels (2400 dpi) Color depth 48-bit internal/48-bit external Grayscale depth 16-bit internal/16-bit external Maximum document size  $12.2 \times 17.2$  inches  $(310 \times 437 \text{ mm})$ Resolution 2400 dpi (optical) Maximum hardware resolution 2400 dpi (main scan) 4800 dpi with Micro Step Drive (sub scan) Maximum interpolated resolution 12800 dpi Speed (1200 dpi, reflective documents) 2.7 ms/line Line art: Grayscale: 2.7 ms/line Color: 8.0 ms/line

Color separation RGB color filters Reading sequence Monochrome: One-pass scanning Color byte sequence: One-pass scanning  $(\mathbf{R}, \mathbf{G}, \mathbf{B})$ Color line sequence: One-pass scanning (R, G, B)Zoom 50 to 200% in 1% increments Command level ESC/I-B8 FS Pixel depth 16 bits per pixel input, 1 to 16 bits per pixel output Brightness 7 levels Line art settings Fixed threshold TET (Text Enhancement Technology, enable/disable selectable) Digital halftoning AAS (Auto Area Segmentation, enable/disable selectable) 3 error diffusion modes (A, B, and C) 4 dither patterns (A, B, C, and D) for bi-level and quad-level data (2 downloadable dither patterns)

#### Gamma correction

- 2 types for CRT display
- 3 types for printer
- 1 type user-defined

#### Color correction

 type for CRT display
 types for printer (available in color byte sequence mode and color line sequence mode)
 type user-defined

#### Interfaces

USB 2.0 (Type B receptacle connector) IEEE 1394 (FireWire) 10Base-T/100Base-TX, optional

#### Light source

Xenon gas cold cathode fluorescent lamp

#### Reliability

100,000 cycles of carriage movement (main unit MCBF)

#### Dimensions

Width:	25.8 inches (656 mm)
Depth:	18.0 inches (458 mm)
Height:	6.2 inches (158 mm)

#### Weight

Approximately 31.9 lb (14.5 kg)

#### Electrical

#### Ratings

Voltage:	90 to 132 VAC
Frequency:	50 to 60 Hz
Current:	1.2 A

#### Power consumption

Operating:	Approximately 45 W
	Approximately 55 W
	with ADF or TPU
Standby:	Approximately 6 W (without ADF or TPU)

#### Environmental

#### Temperature

Operating: 41 to 95 °F (5 to 35 °C) 50 to 89 °F Storage: -13 to 140 °F (-25 to 60 °C)

#### Humidity (without condensation)

Operating: 10 to 80% Storage: 10 to 85%

#### **Operating conditions**

Ordinary office or home conditions. Avoid dust, direct sunlight, and proximity to strong light sources.

#### **Standards and Approvals**

Safety:	UL 60950
	CSA C22.2 No. 60950
EMC:	FCC part 15
	subpart B class B
	CSÂ C108.8 class B

#### **USB** Interface

#### Interface type

Universal Serial Bus Specification Revision 2.0

#### Electrical standard

Full speed mode (12 Mbps) and High speed mode (480 Mbps) of Universal Serial Bus Specification Revision 2.0

## Connector type

One receptacle (Type B)

#### IEEE 1394 (FireWire) Interface

Interface type IEEE 1394-1995 compatible

#### Data transfer method

Half-duplex Data/Strobe differential serial

#### Synchronization method

Clock synchronization with DS-Link

Encoding/decoding DS-Link Logic level 3.3 V

Compatible connectors IEEE 1394-1995 compatible

#### Power class

Power class code 100 No power supply from external sources Repeat function with bus power

#### Environmental

#### Temperature

Operating: 41 to 95 °F (5 to 35 °C) Standby: -13 to 140 °F (-25 to 60 °C)

#### Humidity (without condensation)

Operating: 10 to 80% Standby: 10 to 85%

## Transparency Unit (B12B813362)

#### Film types

35 mm strips or slides Medium format (120/220)  $6 \times 18$  cm  $4 \times 5$  inch film transparencies up to  $12.2 \times 16.5$  inch

#### Maximum scan area

12.2 × 16.5 inches (309 × 420 mm)

#### Dimensions and weight

Width:	25.8 inches (656 mm)
Depth:	18.1 inches (460 mm)
Height:	1.6 inches (40 mm)
Weight:	11 lb (6 kg)

#### Electrical

Input:	24 VDC, 1.3 A
•	5 VDC, 0.3 A

## Automatic Document Feeder (B813212)

### Paper input/output Load face-up; eject face-down

Paper quantity 100 pages (55 g/m<sup>2</sup> paper, maximum total thickness under 0.48 inches [12 mm])

Reliability

100,000 sheets (load/eject MCBF)

#### Dimensions and weight

Width:	23.8 inches (605 mm)
Depth:	19.2 inches (488 mm)
Height:	5.3 inches (134 mm)
Weight:	28.7 lb (13 kg)
Electrical	
Input:	24 VDC, 1.5 A
-	5 VDC, 0.4 A

# Appendix B Requirements and Notices

## **System Requirements**

The minimum system requirements to run the scanner in Windows and Macintosh are listed below. For optimum performance, a faster processor and more memory are recommended. If you're scanning high resolution images, you need more than the minimum available hard disk space.

**Note:** Color and tone reproduction are subject to the display capability of your computer system, including the video card, monitor, and software. See the documentation for these products for details.

## Windows

- Microsoft Windows-compatible Pentium<sup>®</sup> processor, 266 MHz or faster (800 MHz or faster recommended for Windows Vista)
- Preinstalled Windows Vista, Windows XP, Windows XP Professional x64 Edition, or Windows 2000
- USB (1.1 or 2.0) or IEEE 1394 (FireWire) port. To use the scanner's optional network card, your computer must be connected to an existing network using TCP/IP.

IEEE 1394 card must be IEEE1394a-2000 compatible and OHCI compliant

 128MB RAM for Windows XP, Windows XP Professional x64 Edition, or Windows 2000 (512MB RAM recommended)

512MB RAM for Windows Vista (1GB RAM recommended)

- 300MB available hard disk space
- CD-ROM drive
- VGA color monitor with 800 × 600 resolution (1024 × 768 or higher recommended)
- 16-bit, 65K-color display adapter card (24-bit display adapter card with millions of colors recommended)

128MB graphics memory recommended for Windows Vista

## Macintosh

- Macintosh PowerPC<sup>®</sup> or Intel<sup>®</sup> Core<sup>™</sup> processor (500 MHz or faster recommended)
- OS X 10.2.8, 10.3.9 to 10.4.x

**Note:** Check the Apple website for any updates to your operating system. Fast User Switching is not supported for  $Mac^{\$}$  OS X 10.3 and above.

■ USB (1.1 or 2.0) or IEEE 1394 (FireWire) port. To use the scanner's optional network card, your computer must be connected to an existing network using TCP/IP.

IEEE 1394 requires IEEE1394a-2000 compatible and OHCI-compliant interface card

- 128MB RAM (512MB RAM recommended)
- 300MB available hard disk space
- CD-ROM drive
- VGA color monitor with 800 × 600 screen resolution (1024 × 768 or higher recommended)
- 16-bit 65K-color display adapter card (24-bit display adapter card with millions of colors recommended)

## **Important Safety Instructions**

Read all of these instructions and save them for later reference. Follow all warnings and instructions marked on the scanner.

- Unplug the scanner before cleaning. Clean with a damp cloth only. Don't spill liquid on the scanner. Use a soft, dry cloth or a compressed air spray designed for cleaning electronic equipment to clean dust from the document table glass.
- Do not place the scanner on an unstable surface or near a radiator or heat source.
- Use only the power cord that comes with this product. Use of another cord may result in fire or electric shock.
- This product's power cord is for use with this product only. Use with other equipment may result in fire or electric shock.
- Use only the type of power source indicated on the scanner's label, and always supply power directly from a standard domestic electric outlet with a power cord that meets the relevant local safety standards.
- Connect all equipment to properly grounded power outlets. Avoid using outlets on the same circuit as photocopiers or air control systems that regularly switch on and off.
- Do not let the power cord become damaged or frayed.

- If you use an extension cord, make sure the total ampere rating of the devices plugged into the extension cord doesn't exceed the cord's ampere rating. Also, make sure the total ampere rating of all devices plugged into the wall outlet doesn't exceed the wall outlet's ampere rating.
- Do not attempt to service the scanner yourself.
- Do not spray lubricants inside the scanner.
- Never open the scanner case. If you think repairs or adjustments are necessary, consult your dealer or contact Epson.
- Unplug the scanner and refer servicing to qualified service personnel under the following conditions: if the power cord or plug is damaged; if liquid has entered the scanner; if the scanner has been dropped or the case damaged; if the scanner does not operate normally or exhibits a distinct change in performance. Do not adjust controls that are not covered by the operating instructions.
- Lock the transportation lock on the scanner and transparency unit before shipping or transporting these units.
- (H9) The lamp(s) in this product contain mercury. Please consult your state and local regulations regarding disposal or recycling. Do not put in the trash.

## **Declaration of Conformity**

According to 47CFR, Part 2 and 15 for Class B Personal Computers and Peripherals; and/or CPU Boards and Power Supplies used with Class B Personal Computers:

We: Epson America, Inc.

Located at: MS 3-13 3840 Kilroy Airport Way Long Beach, CA 90806-2469 Telephone: (562) 290-5254

Declare under sole responsibility that the product identified herein complies with 47CFR Part 2 and 15 of the FCC rules as a Class B digital device. Each product marketed is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Trade Name:	Epson
Type of Product:	Image Scanner
Model:	J181A
Product:	Epson Expression 10000XL

## **FCC Compliance Statement**

## For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Warning

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

## For Canadian Users

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

## **ENERGY STAR Compliance**

This product conforms to the new ENERGY STAR Program Requirements for Imaging Equipment (Version 1.0) effective April 1, 2007.



**Note:** When used with the transparency unit, the scanner does not conform to the ENERGY STAR requirements.

## Warranty

## Epson America, Inc. Limited Warranty

What Is Covered: Epson America, Inc. ("Epson") warrants to the first end user customer of the Epson product enclosed with this limited warranty statement that the product, if purchased new and operated in the United States or Canada, conforms to the manufacturer's specifications and will be free from defects in workmanship and materials for a period of one year from the date of original purchase. For warranty service, you must provide proof of the date of original purchase.

What Epson Will Do To Correct Problems: Should your Epson product prove defective during the warranty period, please bring the product securely packaged in its original container or an equivalent, along with proof of the date of original purchase, to your Epson Dealer or Epson Customer Care Center. You are responsible for all costs (shipping, insurance, travel time) in getting the product to the service location. Epson will, at its option, repair or replace on an exchange basis the defective unit, without charge for parts or labor. When warranty service involves the exchange of the product or of a part, the item replaced becomes Epson property. The replacement unit may be new or refurbished to the Epson standard of quality, and at Epson's option, the replacement may be another model of like kind and quality. Epson's liability for replacement of the covered product will not exceed the original retail selling price of the covered product. Exchange or replacement products or parts assume the remaining warranty period of the product covered by this limited warranty.

*What This Warranty Does Not Cover:* This warranty does not apply to refurbished or reconditioned products. This warranty covers only normal use in the United States and Canada. This warranty does not cover damage to the Epson product caused by parts or supplies not manufactured, distributed or certified by Epson. This warranty is not transferable. This warranty does not cover third party parts, components or peripheral devices added to the Epson product after its shipment from Epson, e.g., dealer-added boards, chips or drives. Epson is not responsible for warranty service should the Epson label or logo or the rating label or serial number be removed or should the product fail to be properly

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In Canada, warranties include both warranties and conditions.

Some jurisdictions do not allow limitations on how long an implied warranty lasts and some jurisdictions do not allow certain exclusions or limitations on damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from jurisdiction to jurisdiction.

To locate the Epson Authorized Reseller or Epson Customer Care Center nearest you call: (800) 922-8911 or write to: Epson America, Inc., P.O. Box 93012, Long Beach, CA 90809-3012.

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