Kodak

s1220 Photo Scanning System

User's Guide

Safety

User Precautions

- Place the scanner on a sturdy, level work surface capable of supporting 5.5 kg (12 lbs).

- Do not install the scanner in a location subject to dust, humidity or steam. This may cause electrical shock or a fire. Only use the scanner and power supply indoors in a dry location.

- Make sure the electrical power outlet is located within 1.52 meters (5 feet) of the scanner and is easily accessible.

- Use only the power cord that was provided with the scanner. Using any other power cord may cause electrical shock and/or damage the product.

- Be sure the power cord is securely plugged into the wall outlet. Failure to do so may cause electrical shock or fire.

- Do not damage, knot, cut or modify the power cord. This may cause electrical shock or fire.

- The scanner requires a dedicated power outlet. Do not use an extension cord or power strip with the scanner.

- Use only the AC adapter that is supplied with the scanner; Model Tectrol NU60-C240250-13. Do not use the scanner's AC adapter with any other product.

- Leave sufficient space around the power outlet so it can be easily unplugged in case of an emergency.

- Do not use the scanner if it becomes inordinately hot, has a strange odor, emits smoke, or makes unfamiliar noises. Immediately stop the scanner and disconnect the power cord from the power outlet. Contact Kodak Service.

- Do not disassemble or modify the scanner or the AC power adapter.

- Do not move the scanner with the power cord and interface cable attached. This may cause damage to the cord/cable. Remove the power cord from the wall outlet before moving the scanner.

- Follow the Kodak recommended cleaning procedures. Do not use air, liquid or gas spray cleaners. These cleaners displace dust, dirt and debris to another location within the scanner, which may cause the scanner to malfunction.

- Material Safety Data Sheets (MSDS) for chemical products are available on the Kodak website at: www.kodak.com/go/msds. When accessing the MSDSs from the website, you will be required to provide the catalog number of the consumable you want the Material Safety Data Sheet for. See the section entitled, "Supplies and consumables" later in this guide for supplies and catalog numbers.

Environmental information

- The *Kodak* s1220 Scanner is designed to meet worldwide environmental requirements.
- Guidelines are available for the disposal of consumable items that are replaced during maintenance or service; follow local regulations or contact Kodak locally for more information.
- For disposal or recycling information, contact your local authorities or, in the USA, visit the Electronics Industry Alliance website: www.eiae.org.
- The product packaging is recyclable.
- Parts are designed for reuse and recycling.
- The *Kodak* s1220 Scanner is Energy Star compliant and are shipped from the factory with the default time set to 15 minutes.

European Union

 This symbol indicates that when the last user wishes to discard this product, it must be sent to appropriate facilities for recovery and recycling. Please contact your local Kodak representative or refer to www.kodak.com/go/recycle for additional information on the collection and recovery programs available for this product.

Acoustic emission

Maschinenlärminformationsverordnung – 3, GSGV
Der arbeitsplatzbezogene Emissionswert beträgt <70 dB(A).

[Machine Noise Information Ordinance — 3, GSGV
The operator-position noise emission value is <70 dB(A).]

Power system connection

This product is also designed for Norwegian IT power system with phase-to-phase voltage 230V.

EMC statements

United States: 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 instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or 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 these 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 additional suggestions.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulation.

Korea: As this equipment has obtained EMC registration for household use, it can be used in an area including residential areas.

이 기기는 가정용으로 전자파적합등록을 한 기기로서 주거지역에서는 물론 모든 지역에서 사용할 수 있습니다.

Japan: This is a Class B product based on the standard of the Voluntary Control Council for interference by information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual**.**

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＢ情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

1 Introduction

Contents

The *Kodak* s1220 Photo Scanning System allows you to easily digitize and enhance photos and can also be used as a general office document scanner. The s1220 Photo Scanning Software combined with the *Kodak* s1220 Photo Scanner allows you to scan photos, remove red eye, retouch and rotate images, apply image sharpening and burn a CD/DVD if desired. Once the photos are scanned, the images can be used in a variety of ways; e.g., printed, emailed, written to a CD/DVD, or uploaded to the *Kodak* Gallery or other photo management system for sharing and various creative uses such as calendars, photo books or slide shows. Smart Touch software, included with the system, also supports general document scanning on the Kodak s1220 Photo Scanning System.

Supporting documentation

In addition to this User's Guide the following documentation is also available. These documents are also available on the Installation CD.

- **Installation Guide** — provides a step-by-step procedure for installing the scanner.
- **Reference Guide** — provides easy visual steps for cleaning your scanner. Keep this guide close to the scanner so you can use it as an easy reference.

The following guides are for advanced users:

- **Scanning Setup Guide** — the TWAIN datasource is included with the *Kodak* s1220 Photo Scanner. The Scanning Setup Guide explains how to use basic image processing features and is provided on the Installation CD in PDF format.
- **Smart Touch User's Guide** — provides information and procedures on how to use Smart Touch functionality. This guide is provided on the Installation CD in PDF format and is also available as a Help file.

Accessories

- *Kodak* **A4 Flatbed Accessory** — the *Kodak* A4 Flatbed adds scanning capability for exception photos (e.g., badly torn or very fragile photos, severely curled photos, etc.), bound albums, scrapbooks and documents up to 219 x 300 mm (8.62 x 11.81 inches). CAT No. 167 7288

- *Kodak* **Black Background Accessory for A4 Flatbed** — this flatbed cover can be used if you are scanning photos with primarily a white background and you want a defined black border on your images. CAT No. 863 6870

- *Kodak* **A3 Flatbed Accessory** — the *Kodak* A3 Flatbed adds scanning capability for exception photos (e.g., badly torn or very fragile photos, severely curled photos, etc.), bound albums, scrapbooks and documents up to 302 x 461 mm (11.92 x 18.15 inches). CAT No. 179 6747

What's in the box

Before you begin open the box and check the contents:

- *Kodak* s1220 Photo Scanner
- Output tray
- Pre-separation pad, for use in document scanning
- Optional output tray kit
- USB 2.0 cable
- Power supply
- AC power cord bundles
- USB software dongle
- Sample Cleaning Kit
- Dust cover
- Welcome Folio which includes:
    - Installation CD including:
        - *Kodak* s1220 Photo Scanning Software
        - Smart Touch software for use in document scanning
        - s1220 Photo Scanner driver software
    - Printed User's Guide, English
    - Printed Reference Guide, English
    - Installation Guide
    - Read Me First
    - Service & Support Contact Information sheets
    - Miscellaneous flyers

Scanner components

Front view

Input tray

Function window

Scroll button

Start button

Scanner cover

LED indicator

Tilt button

Standard output tray

Scanner cover — provides access to internal components; such as, the imaging area and the feed and separation modules.

Tilt button — allows you to rotate the scanner into a downward position. The scanner should be left in the downward position for scanning photos.

Standard output tray — collects the scanned photos. Use this tray when you are scanning 5 photos or less; otherwise, use the optional output tray kit included with the s1220 Photo Scanning System.

Input tray — holds up to 25 photos or 75 documents.

Function window, Scroll button and Start button *are available for use with document scanning* when using Smart Touch functionality on the system.

LED Indicator — illuminates or flashes indicating scanner status.

- **Steady green**: ready to scan
- **Flashing green**: preparing to scan
- **Steady red**: scanner not communicating with the PC
- **Flashing red**: error indication such as, *Scanner Cover Open*, in conjunction with the Function window displaying an "E".
  See Chapter 7, *Troubleshooting* for error code descriptions.

Inside view
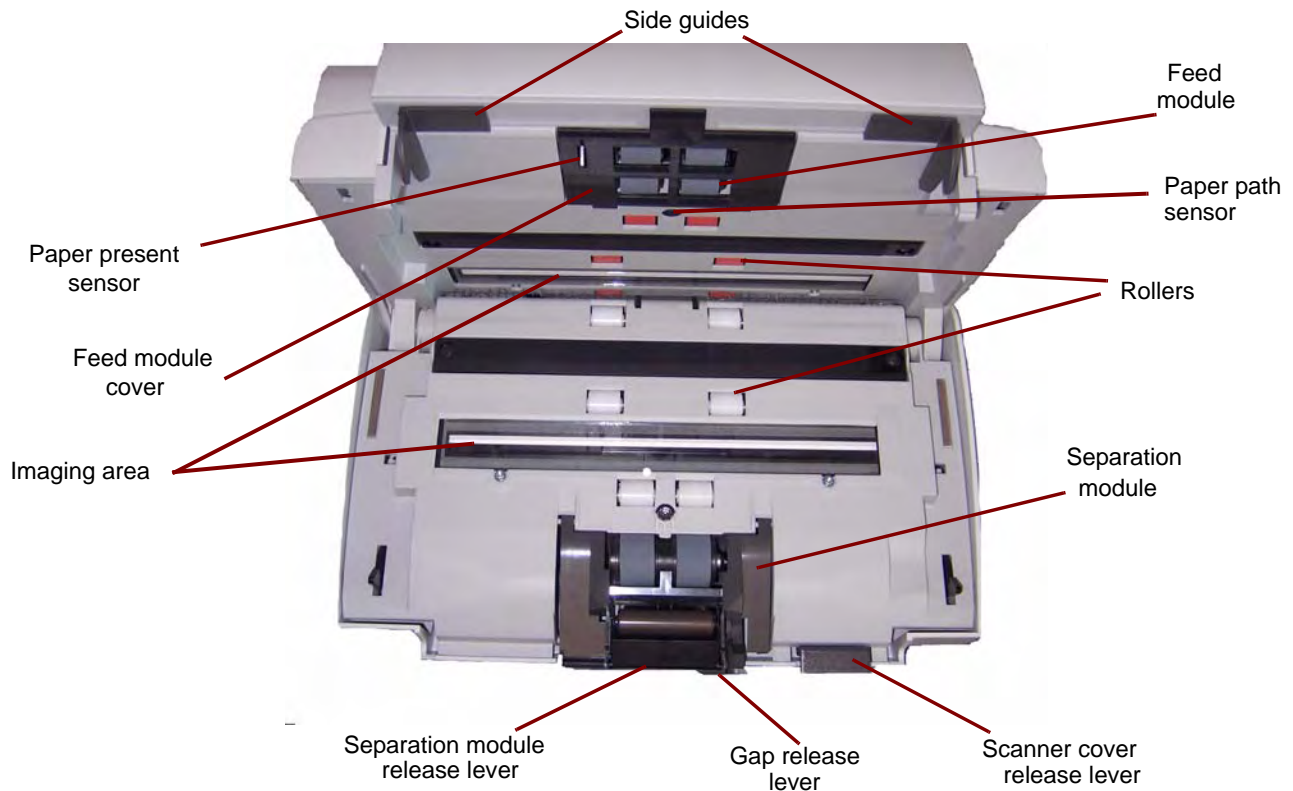
Side guides — slide the guides back and forth to accommodate the size of photos you are scanning.

Paper present sensor — detects the presence of photos in the input tray.

Feed module cover — this cover needs to be removed when cleaning or replacing the feed module or feed module tires.

Imaging area — for optimum image quality, keep the imaging area clean.

Separation module release lever — push the release lever down to remove the separation module for cleaning or replacement.

Gap release lever — allows you to manually adjust the space between the feed module and separation module for photos that require special handling, e.g., photos that are badly torn.

Feed module, **rollers** and **separation module** — provides smooth feeding and separation of various sizes, thicknesses and textures of photos.

Paper path sensor — tracks the movement of paper and photos through the scanner.

Scanner cover release lever — opens the scanner to allow access to the paper path for cleaning or clearing a jam.

Rear view

Power switch   Power port   USB port   Flatbed port   Security lock port
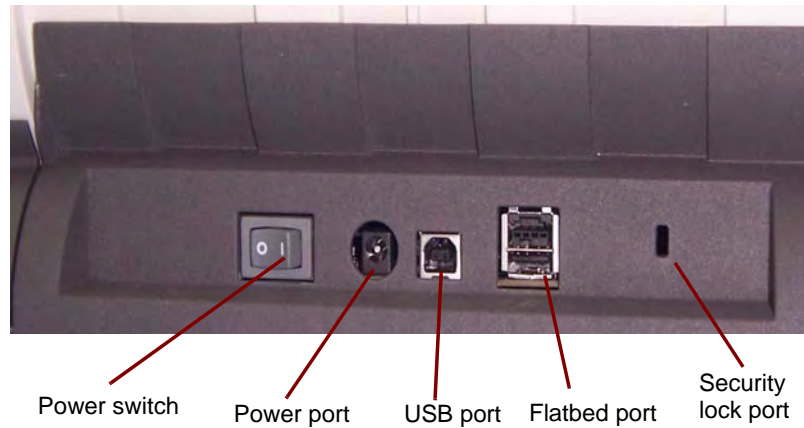
Power switch — turns the scanner on and off.

Power port — connects the power cord to the scanner.

USB port — connects the scanner to the PC.

Flatbed port — connects the optional flatbed accessory to the scanner.

Security lock port — connects a security lock to the scanner (similar to the security lock port used for a laptop). You can purchase a standard security lock at an office supply store. Refer to the instructions provided with the security lock for installation procedures.

2 Installation

Contents

Installing the scanner

This section provides detailed information of the *Installation Guide* that is provided with your scanner. Follow these steps in the order they are provided to install your scanner.

NOTE: If you have already performed all of the steps in the *Installation Guide*, skip this section.

- Power down any scanners attached to the PC before installing the s1220 Photo Scanning Software application.

- Install the software before connecting the scanner to the PC.

- Be sure you have administrator rights. The s1220 Photo Scanning System application must be installed under **Administrator** and run under **Administrator** or **Standard** groups.

- Close any currently running applications.

- Close any currently running applications that use a USB software dongle before starting the s1220 Photo Scanning System installation.

- Close any scanning applications including the Scan Validation Tool and Smart Touch.

- Remove any USB software dongle connected to the PC.

Installation notes regarding Windows 7 and Windows XP

Windows 7

If you are installing on Windows 7, the following message will be displayed after installing the software and turning on the scanner.

This message is displayed because Windows 7 is looking for the drivers on the Internet at a Microsoft website even though the drivers are part of the *Kodak* Driver Software installation. This process can take several minutes. To prevent this from happening, you can click on the **Skip obtaining driver software from Windows update** link.

Windows XP

If you are installing on Windows XP, the screen below will be displayed as part of the new Microsoft Feature Pack for Storage 1.0 software. This may be misleading because it says that it is for Blu-Ray.

• Click **Next** on this message. This software needs to be installed for CD/DVD burners for the Burn CD/DVD feature to work on XP.

Installing the *Kodak* Driver Software

1. Insert the *Kodak* s1220 Photo Scanner Installation CD in the CD-ROM drive. The installation program starts automatically.

   NOTE: If the installation does not auto start, access the drive where the CD is inserted and browse to the INSTALLSTW.exe file on the root directory of the CD.

2. Select **Install Language.**

3. Click **Next** when the Welcome screen is displayed.

4. Click **Next** after you have read and agreed with the terms of the Software License Agreement.

5. If you want to store the scanned images in the c:\Scanned_Pictures default directory, click **OK**. Otherwise, use the Browse panel to select the desired directory, or type the full pathname of the directory. When finished, click **OK**.

   Several progress messages will be displayed.

   NOTES:

   • If the correct version of .NET Framework is not installed, a message box will be displayed stating that it is being installed. This installation can take several minutes.

   • If the correct version of Microsoft C++ redistributable runtime library is not installed, a message will be displayed to install the software. **Do not cancel the installation process.**

   • XP users may be asked to install Microsoft Feature Pack for Storage. Select **Yes** to install.

6. Click **Finish** when the installation is complete.

7. Remove the Installation CD from the CD-ROM drive. The s1220 Photo Scanner shortcut will be placed on your desktop.

8. Restart the PC.

Attaching the standard output tray

1. Slide the standard output tray underneath the scanner platform along the center guide.
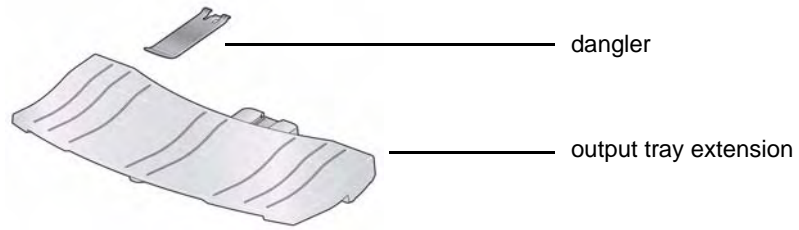
2. Push it all the way back until it snaps into place.

Attaching the *optional* output tray kit

The *Kodak* s1220 Photo Scanner is shipped with an optional output tray kit, which includes: an output tray extension and dangler. This output tray is optional but is recommended when scanning large stacks of photos or documents.
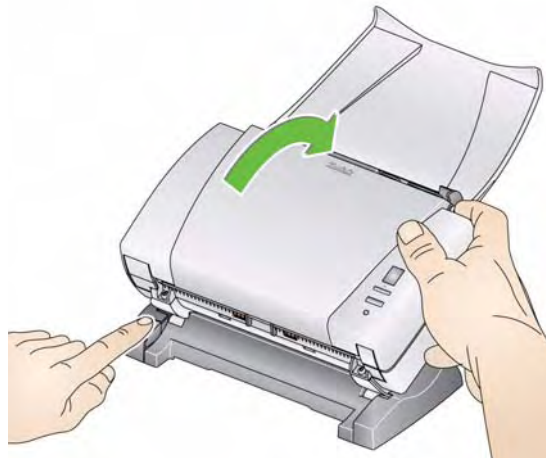

dangler

output tray extension

To install the output tray kit:

1. Remove the standard output tray from underneath the scanner by pressing down on the two tabs and pulling the output tray out of position.
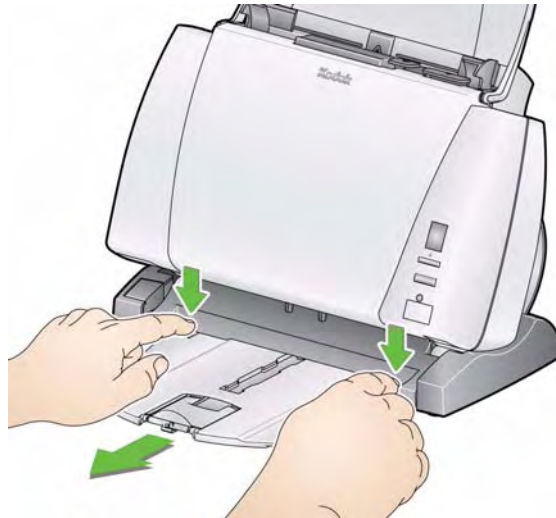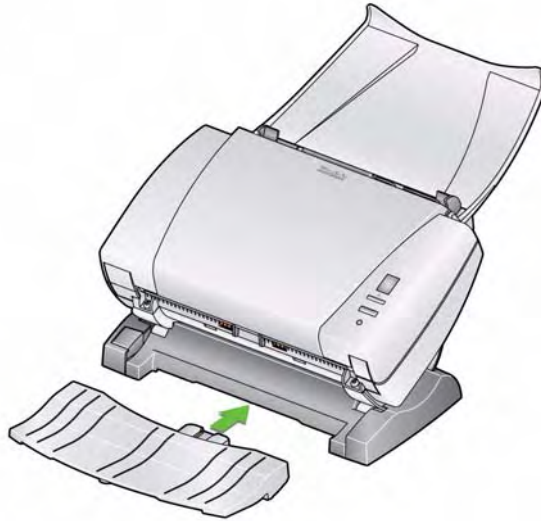

2. Press and hold the tilt button and rotate the scanner body to the downward position.

    NOTE: The scanner must be in the downward position when using this output tray.
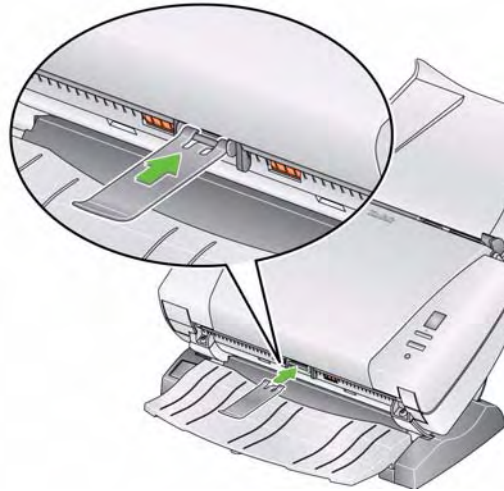
3. Slide the output tray extension underneath the scanner platform along the center guide and push it back until it is securely in place.

NOTE: If the clip is not installed you can install it by sliding it up into the scanner between the slots at the center of the scanner and snap it in place. Once the clip is installed, there is no need to remove it.
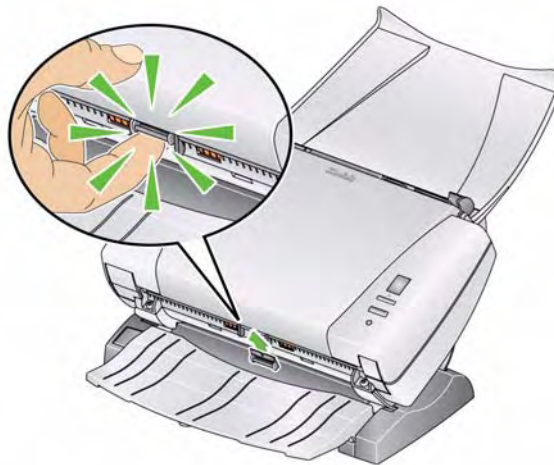
4. Snap the dangler onto the clip.

5. Slide the standard output tray along the rail underneath the output tray extension and push it back until it is securely in place.
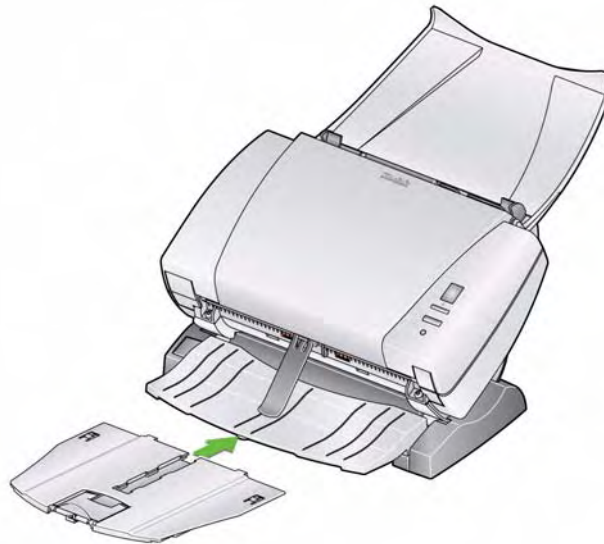
Connecting the power cord and USB cable

When the s1220 Photo Scanning Software application has been installed, connect the power supply, power cord and USB cable to the scanner. Refer to the illustration below for making proper connections. Make sure the power outlet is located within 1.52 metres (5 feet) of the scanner and is easily accessible.

1. Select the appropriate AC power cord for your region from the supply of power cords packed with your scanner.

2. Attach the power cord you selected to the power supply.

   NOTE: Be sure that the power cord is securely attached to the power supply.

3. Plug the output power cord from the power supply into the power port on the scanner.

4. Plug the other end of the power cord into the wall outlet.
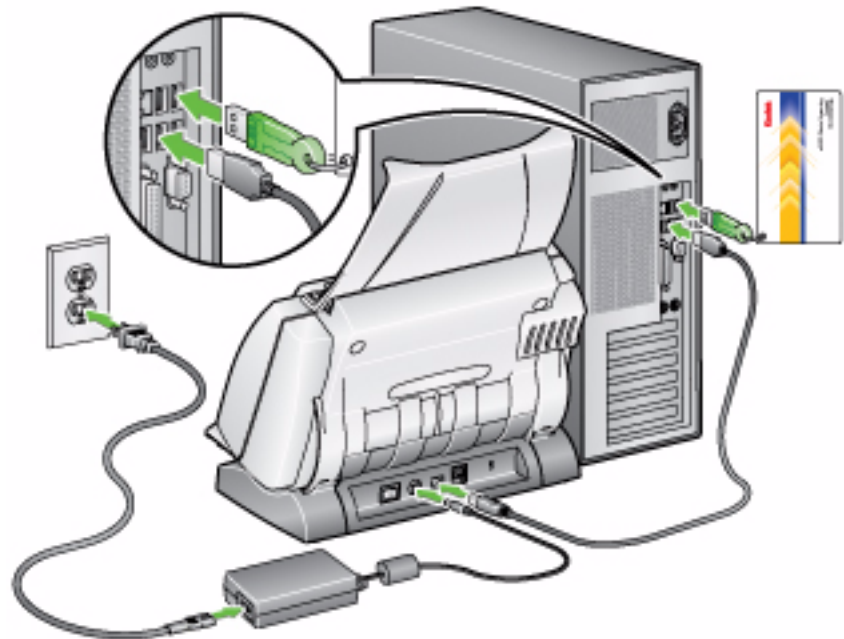
5. Attach the USB cable to the scanner USB port, located on the back of the scanner.

6. Attach the other end of the USB cable to the proper USB 2.0 port on your PC.

Turning on the scanner

1. Press the button on the back of the scanner to the On (|) position.
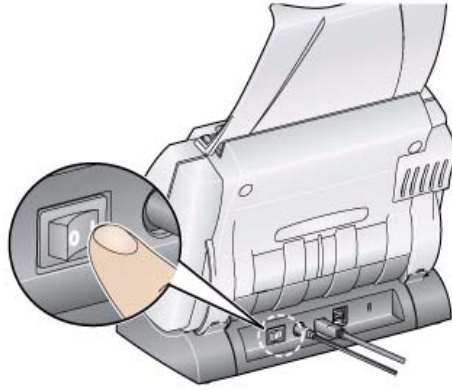
When you turn on the scanner, the LED indicator on the front of the scanner will flash as the scanner goes through a series of self tests.

Please wait while the operating system synchronizes the scanner with the installed software.

When the installation process is complete and ready to scan, the LED indicator will stop flashing and stay green.

2. When scanner setup is complete and you are ready to scan photos, insert the USB software dongle in a USB port on your PC. Wait for the USB software dongle to be recognized by your PC.

NOTE: **DO NOT LOSE THE USB SOFTWARE DONGLE! THERE IS A FEE TO REPLACE THE DONGLE. IT IS RECOMMENDED THAT YOU ATTACH THE DONGLE TO THE SCANNER USB CABLE.**

Starting the application software

s1220 Photo Scanner

- Double-click on the application shortcut on your desktop or select **Start>Programs>Kodak>Document Imaging>s1220 Photo System>s1220 Photo Scanner**. The Customer Information screen will be displayed.
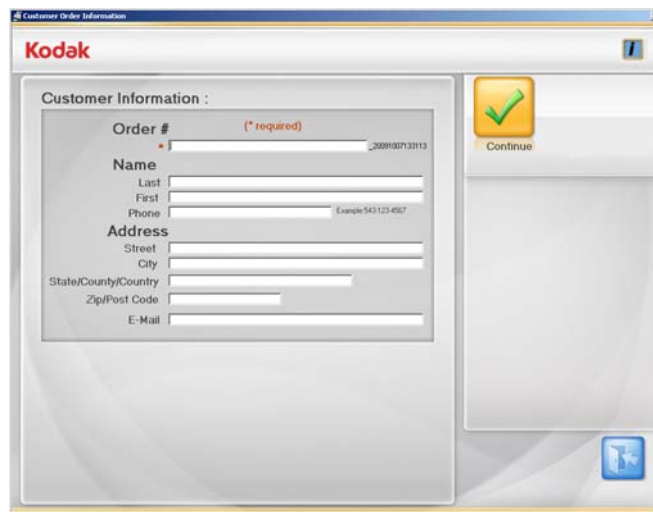
Exiting the application software

- Click the **Exit** icon in the lower right-hand corner on most screens or click the **Close** box in the upper right-hand corner.

3 Screen Descriptions

Contents

This chapter describes the screens and icons that are available when using the *Kodak* s1220 Photo Scanning System.

All screens within the *Kodak* s1220 Photo Scanning System provide the following icons:
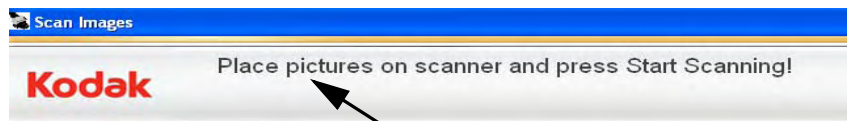
About: displays the software version and copyright information.

Exit: closes the *Kodak* s1220 Photo Scanning Software.
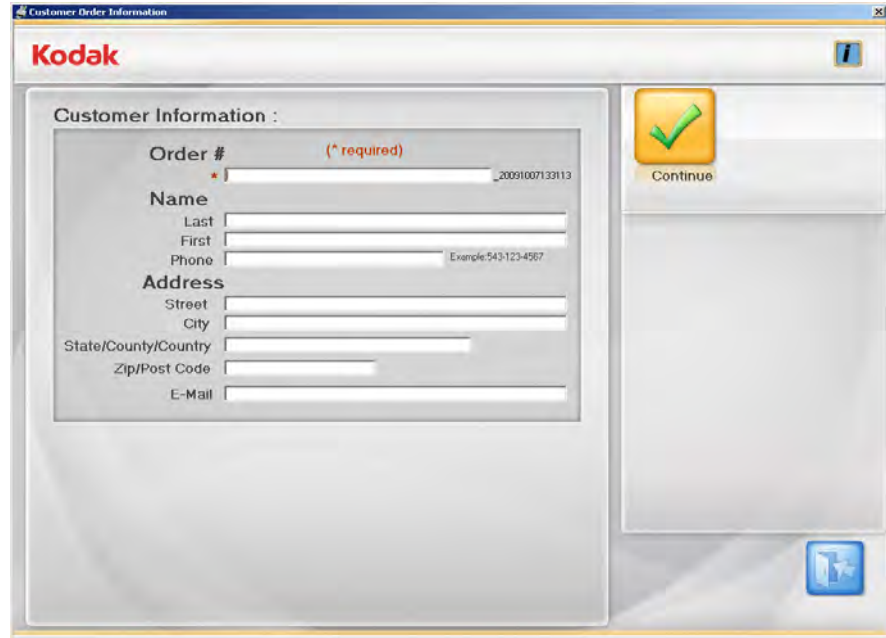
A message area is provided on all screens below the title bar.

Messages are displayed in this area

Customer Order Information screen

When you launch the s1220 Photo Scanning Software, the Customer Order Information screen will be displayed.

Customer Information

Order # (required) — enter any text you want to add for your own reference. This text is appended with the date and time. This is a required field. Up to 51 alphanumeric characters are allowed in this field.

Name and Address — optionally enter the customer name, address and email address information. These are not required fields.

- Up to 58 characters are allowed in the *Last, First, Street,* and *City* fields.

- Up to 42 characters are allowed in the *State/County/Country* and *Phone* fields.

- Up to 58 characters are allowed in the *E-Mail* field. If you enter an email address, it must be a valid email address format.

- Up to 24 numeric characters are allowed in the *Zip/Post Code* field.

  NOTE: This information is saved in the same directory where the images are saved in a .xml file format.

Continue — displays the Scan Images screen.

Scan Images screen

When you click **Continue** on the Customer Order Information screen, the Scan Images screen will be displayed.
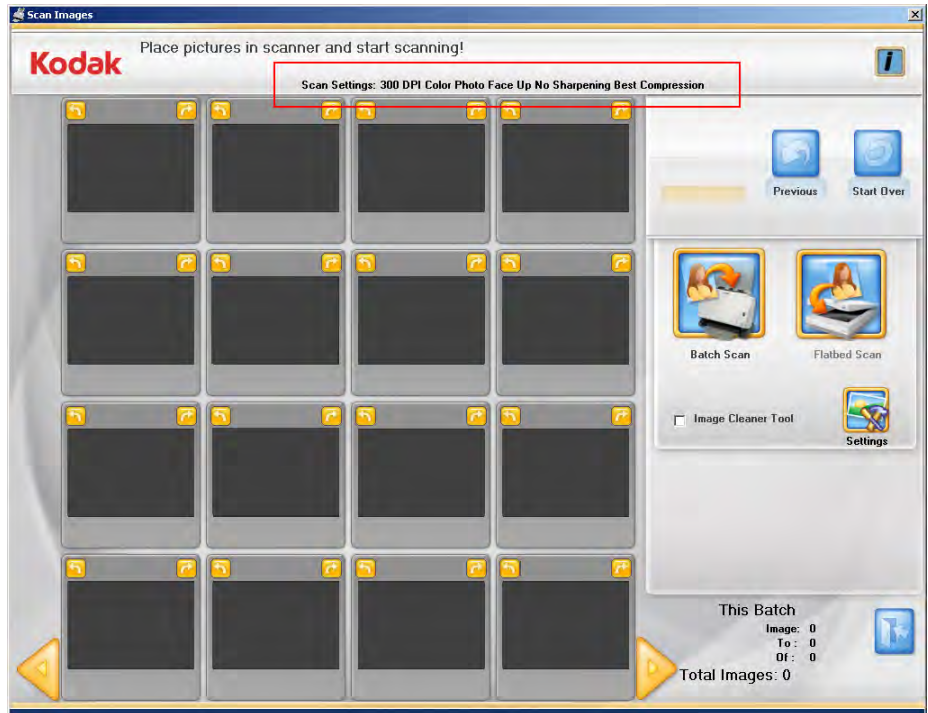
Scan Settings — at the top of the Scan Images screen, the current Scan Settings are displayed. If these settings are not acceptable, you can change them by clicking the **Settings** button. For more information regarding these settings, see the section entitled, "Scan Settings screen".

16-Up Display window — displays up to 16 images at a time.

Previous — goes back to the Customer Order Information screen.

Start Over — goes back to the Customer Order Information screen and clears the system of all data for the current order. The confirmation message *Do you want to start over? This will delete all the files that were scanned* will be displayed.

Batch Scan — scans batches of photos using the s1220 Photo Scanner.

Flatbed Scan — if an optional *Kodak* A3 or A4 Flatbed is attached, and you select this option, photos will be scanned from the flatbed.

Image Cleaner Tool — when checked, the scanner will make every attempt to eliminate any streaks in the image during the scanning process. Applying the Image Cleaner Tool does not slow down the scanning process. Frequently streaks in images are caused because the scanner has accumulated dust and dirt. Be sure your scanner is clean to help prevent streaks in images.

NOTE: The Image Cleaner tool is not applied to flatbed scans.

Settings — when selected, the Scan Settings screen is displayed which allows you to change the following settings: the batch scan mode, sharpen images, resolution and other settings. For more information regarding these settings see the section entitled, "Scan Settings screen".

Batch Information — these values will be 0 until a batch has been scanned.

- **Image**: displays the number of the first image shown in the 16-Up Display window.
- **To**: displays the number of the last image shown in the 16-Up Display window.
- **Of**: displays the total number of photos scanned in the batch.

**Total Images**: displays the total number of scanned images in the current order.

Moves to the previous set of 16 images

Moves to the next set of 16 images

Scan Images screen (continued)

When you click **Batch Scan** or **Flatbed Scan** on the Scan Images screen, thumbnail images will be displayed in the 16-Up Display window as the photos are being scanned. After the batch is scanned, the photos will be rearranged and displayed in the order they were scanned. You can edit the entire batch or individual images, or scan another batch for that customer order.
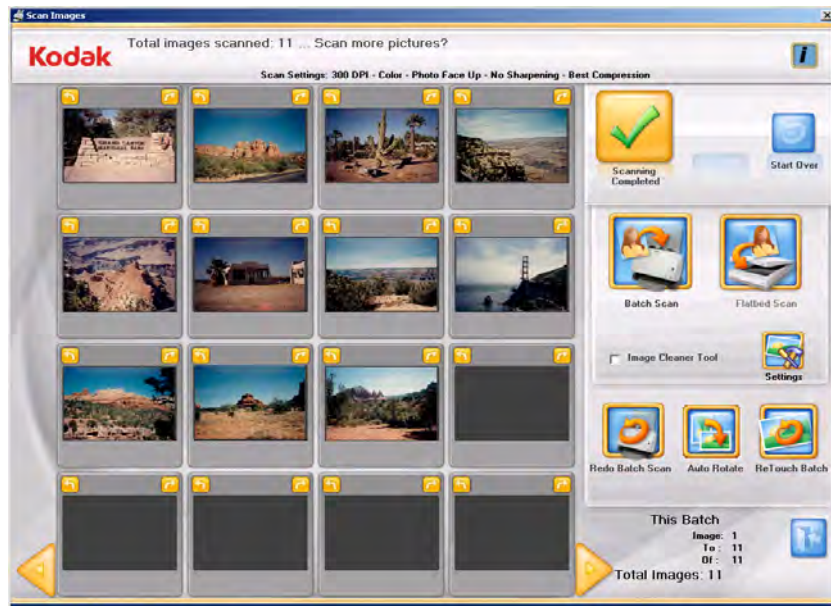
NOTE: To edit an individual image, click on the thumbnail. The Enhance Picture screen will be displayed.

16-Up Display window — displays up to 16 images at a time.

   Rotates the image 90 degrees counter-clockwise (left).

   Rotates the image 90 degrees clockwise (right).

   Moves to the previous set of 16 images, if any.

   Moves to the next set of 16 images, if any.

Scanning Completed — displays the Order Preview screen.

Start Over — goes back to the Customer Order Information screen and clears the system of all data for the current order. The confirmation message *Do you want to start over? This will delete all the files that were scanned* will be displayed.

Batch Scan — allows you to scan another batch of photos into the same order # from the *Kodak* s1220 Photo Scanner.

Flatbed Scan — allows you to scan another photo from the flatbed.

Image Cleaner Tool — when checked, the s1220 Photo Scanner will make every attempt to eliminate any streaks in the image during the scanning process. Applying the Image Cleaner Tool does not slow down the scanning process. Frequently, streaks in images are caused because the scanner has accumulated dust and dirt. Be sure your scanner is clean to help prevent streaks in images.

NOTE: The Image Cleaner tool is not applied to flatbed scans.

Settings — when selected, the Scan Settings screen is displayed which allows you to change the following settings from batch to batch: the batch scan mode, sharpen images and the resolution. For more information regarding these settings see the section entitled, "Scan Settings screen".

Redo Batch Scan — allows you to rescan and replace the last batch of scanned images.

Auto Rotate — when selected, the s1220 Photo Scanning Software will make every attempt to properly automatically rotate images to the correct orientation. This option works most effectively for photos with faces; therefore some photos may still need to be rotated manually.

For two-sided scans, the back side image is automatically rotated with the same orientation as the detected orientation for the front side image.

ReTouch Batch — automatically enhances (e.g., color, contrast, brightness, etc.) all of the color images in a batch. When this option is selected, an *Image Retouch* progress bar is displayed at the top of the screen.

Batch Information — these values will be 0 until a batch has been scanned.

- **Image**: displays the number of the first image shown in the 16-Up Display window.
- **To**: displays the number of the last image shown in the 16-Up Display window.
- **Of**: displays the total number of photos scanned in the batch.

Scan Settings screen

The Scan Settings screen allows you to change the default settings used in the scanning process.
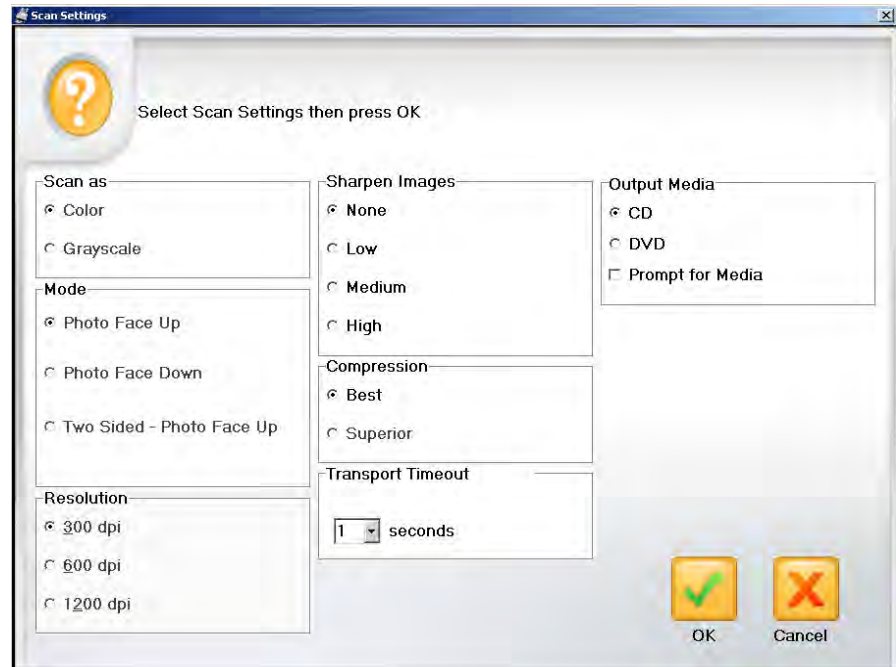
Scan as — select either **Color** or **Grayscale**.

NOTE: Color scanning is recommended for most photos, including black and white and grayscale photos, so Retouch and Sharpen processing may be applied to the scanned images. Use **Grayscale** scanning for exception processing if color scan results are not what you desired.

Mode — select one of the following batch scan modes:

- **Photo Face Up** — captures the side of the photo that is face up in the input tray. This is the recommended mode for photos.

- **Photo Face Down** — captures the side of the photo that is face down in the input tray.

- **Two Sided - Photo Face Up** — captures both sides of the photo as two separate image files labeled A and B.

Resolution — allows you to select the dots per inch (dpi), which affects the size of the image. The options are: 300, 600 and 1200 dpi. The default is 300 dpi. In most cases, 300 dpi is sufficient. Selecting 600 dpi or 1200 dpi increases scanning and processing time.

Sharpen Images — sharpens the focus and edges of the scanned image. If this option is selected, all photos within the batch (the stack of photos to be scanned) will be sharpened unless the setting is changed again.

The options are:

- **None**: no sharpening will be done. This is the default.
- **Low**: low amount of sharpening applied.
- **Medium**: medium amount of sharpening applied.
- **High**: high amount of sharpening applied.

NOTE: **Low** or **Medium** are the recommended sharpen settings in most cases where sharpening is desired. This option is not recommended for grayscale images.

Compression — select one of the following compression settings. **Best** is the default.

- **Best** — optimum compression, best image quality. Creates a smaller file size than **Superior** compression. Select **Best** if you want standard size reprints of scanned image files.
- **Superior** — minimum compression, superior image quality. Creates a file that is 5 to 10 times larger than **Best** compression, which will impact performance. Select **Superior** if you want to reprint enlargements of scanned image files.

Transport timeout — allows you to set the amount of time the scanner will wait after the last photo enters the transport before the transport timeout action is taken. You can specify a time delay setting from 1 to 20 seconds to allow more time to insert the next photo or document into the current batch.

Output Media — determines whether files are partitioned to fit onto a **CD** or **DVD** based on file size.

- **Prompt for Media:** if selected, you will be asked to select **CD** or **DVD** output after scanning is complete.

Enhance Picture screen

When you click on a thumbnail on the Scan Images screen, the image will be displayed in the Enhance Picture screen.
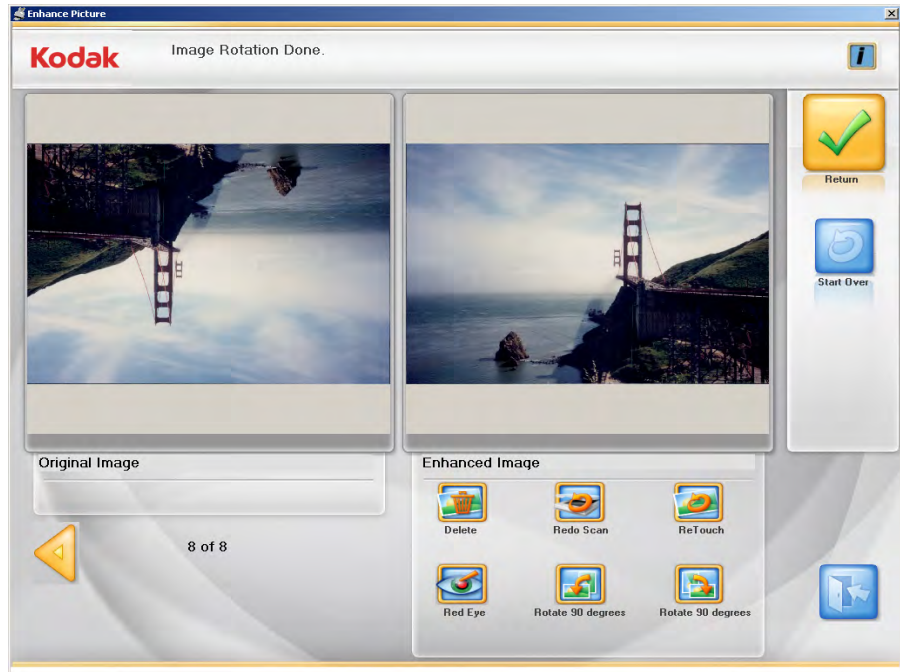
Original Image/Enhanced Image — the Original Image window displays the image as it was scanned. When you select one of the Enhanced Image icons (e.g., Rotate 90 degrees), the changes will be displayed in the Enhanced Image window. When you are finished, a message will be displayed asking if you want to save the changes.

Return — goes back to the Scan Images screen.

Start Over — goes back to the Customer Order Information screen and clears the system of all data for the current order. The confirmation message *Do you want to start over? This will delete all the files that were scanned* will be displayed.

Moves to the previous image   Moves to the next image

Enhance Image icons
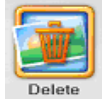
Deletes the selected image.
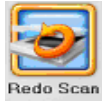
Replaces the current image with the rescanned image. You may select to rescan the photo face up, face down or from the flatbed, if a flatbed is attached.
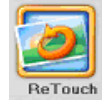
Enhances the colors, contrast, brightness, etc. in the scanned image. This option applies to black and white and color images scanned with color mode.

Removes the red eye in the scanned image. This option applies to black and white and color images scanned with color mode.
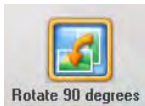
Rotates the image 90 degrees to the left (counter-clockwise).
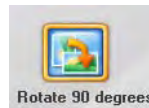
Rotates the image 90 degrees to the right (clockwise).

Order Preview screen

When you click **Continue** on the Scan Images screen, the Order Preview screen is displayed. This screen allows you to preview and modify your images before completing this customer order.
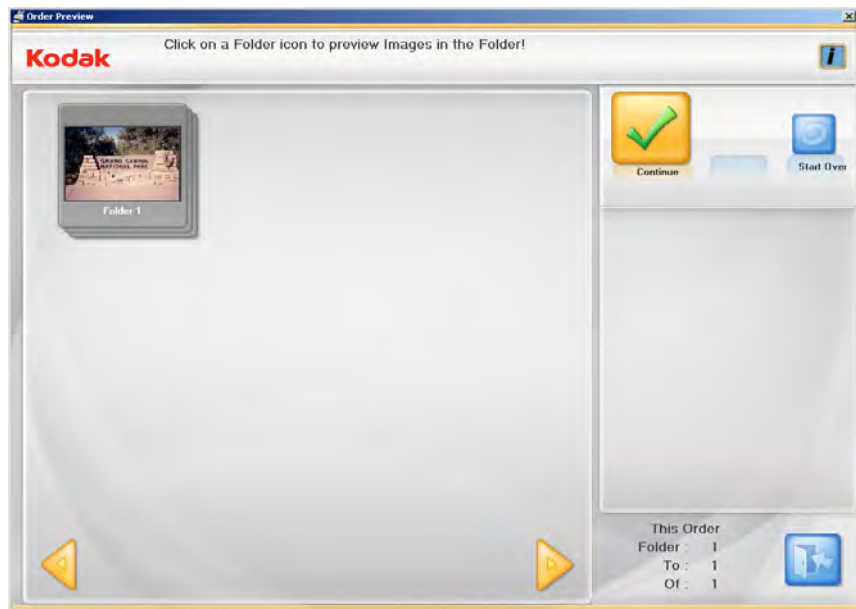
By default, the maximum folder size is 650 MB for CDs and 4.4 GB for DVDs. If a customer order contains more images than can fit on the CD or DVD, multiple folders will automatically be created while scanning.

For more information on setting folder sizes, see the section entitled, "Application configuration" in Chapter 7.

Display window — displays the folder(s) of scanned photos. You can click on a folder to view the contents.

 Moves to the previous set of folders.

 Moves to the next set of folders.

Continue — displays the Order Summary and Creation screen.

Start Over — goes back to the Customer Order Information screen and clears the system of all data for the current order. The confirmation message *Do you want to start over? This will delete all the files that were scanned* will be displayed.

**This Order** — provides a summary of the folders within this customer order.

- **Folder**: displays the number of the first folder shown in the Order Preview window.
- **To**: displays the number of the last folder shown in the Order Preview window.
- **Of**: displays the total number of folders in this customer order.

Preview Details screen

When you click on a folder on the Order Preview screen, the Preview Details screen is displayed. This screen allows you to preview the photos within a selected folder and enhance them if necessary.

16-Up Display window — displays up to 16 images from the selected folder.

	Rotates the image 90 degrees counter-clockwise (left).
	Rotates the image 90 degrees clockwise (right).
	Moves to the previous set of 16 images.
	Moves to the next set of 16 images.

Continue — displays the Order Preview screen.

Start Over — goes back to the Customer Order Information screen and clears the system of all data for the current order. The confirmation message *Do you want to start over? This will delete all the files that were scanned* will be displayed.

Retouch Folder— automatically enhances the colors, contrast, brightness, etc. of all the black and white or color images scanned with color mode within the selected folder.

Auto Rotate — when selected, the s1220 Photo Scanning Software will make every attempt to properly automatically rotate images to the correct orientation. This option works effectively for photos with faces, therefore some photos may still need to be rotated manually.

For two-sided scans, the back side image is automatically rotated with the same orientation as the detected orientation for the front side image.

NOTE: Auto rotate is slower for grayscale images. Therefore, it is recommended that you scan black and white photos as color images and use grayscale scanning for exception processing if color scan results are not what you desired.

This Folder — provides a summary of the images within this folder.
- **Image**: displays the number of the first image shown in the 16-Up Display window.
- **To**: displays the number of the last image shown in the 16-Up Display window.
- **Of**: displays the total number of images in the folder.
- **Total Images**: displays the total number of scanned images in this customer order.

Order Summary & Creation screen

When you click **Continue** on the Order Preview screen, the Order Summary and Creation screen is displayed. This screen allows you to finalize your order.

Display window — displays the information previously entered on the Customer Order Information screen. It also provides the number of photos scanned. If desired, you can change any customer information except the Order #.

Finalize Order — completes this order. You will not be able to scan additional photos. You can optionally print the Order Summary as part of order completion.

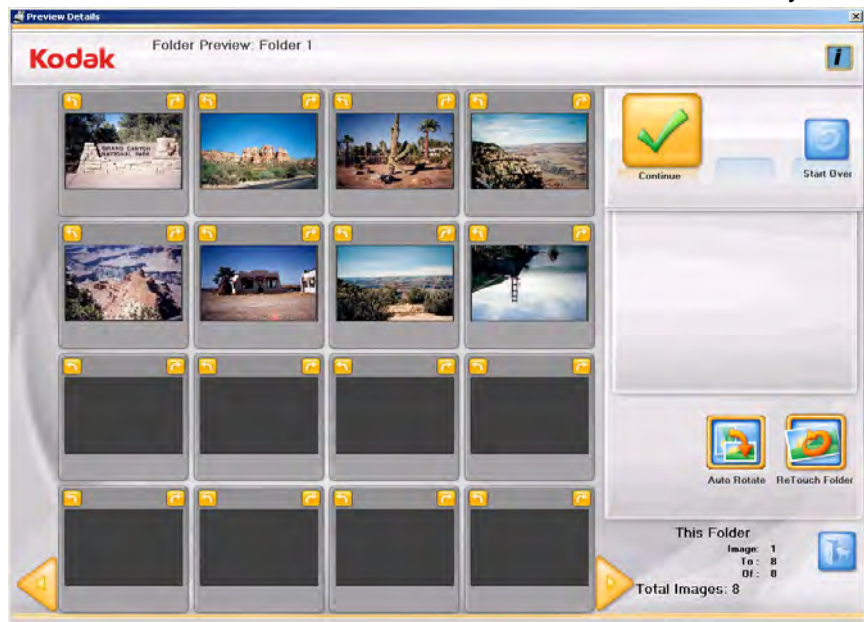**Previous** — displays the Order Preview screen.

Start Over — goes back to the Customer Order Information screen and clears the system of all data for the current order. The confirmation message *Do you want to start over? This will delete all the files that were scanned* will be displayed.

Print Order Details:

- if selected, allows you to print the order summary using the operating system's Print dialog box. A message will be displayed asking if you want to start another scan session.

- if not selected, a message will be displayed asking if you want to start another scan session. If you do not start another scan session, the application will close. If you do start another scan session, the Customer Order Information screen will be displayed.

Burn CD/DVD — the Burn CD/DVD dialog box will be displayed allowing to burn this order to a CD or DVD. You can also add other files or folders to the same CD/DVD.

NOTE: This button may be disabled if the user does not have permission to burn CDs and DVDs. Refer to the section entitled, "Application configuration" in Chapter 7 for more information.
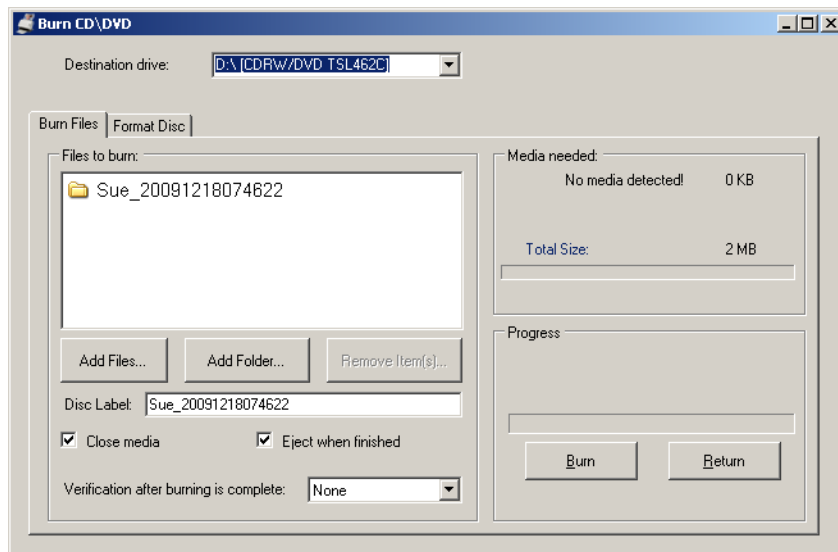
Burn Files tab

- **Destination Drive:** allows you to select the CD/DVD drive where you want to write your images to media.

- **Files to Burn**: defaults to the customer order folder when the completed customer order fits on one of the selected media (CD, DVD). If more than one media is needed, then each folder in the order will be invoked separately for burning (FD-01, FD-02, etc.).

- **Add Files**: use to add files to the list of files and folders to burn.

- **Add Folder**: use to add one folder at a time to the list of files and folders to burn.

- **Remove Items**: allows you to select files or folders to remove from the list of files and folders to burn.

- **Disc Label**: defaults to the order number. You can change the default. Up to 32 characters are allowed in this field.

- **Close media**: defaults to checked, which will finalize the CD/DVD to play in other PCs.

- **Eject when finished**: if checked, will automatically eject the CD/DVD when burning is complete.

- **Verification**: **after burning is complete**, you can select **None** (no verification will take place) or select a **Quick** or **Full** verification process that the data was burned successfully.

- **Burn/Cancel** — click this button to start or cancel a burn. Cancelling a burn in progress may result in an unusable CD/DVD. There may be a delay after selecting **Burn** while the media spins up, before burning starts.

- **Return** — click this button to return to the Order Summary screen.

Format Disk tab
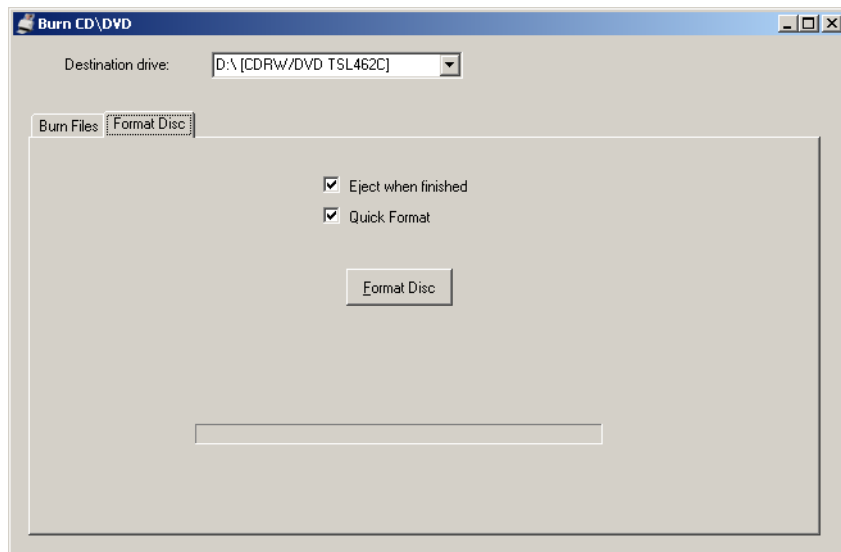
- **Eject when finished**: if checked, will automatically eject the CD/DVD when formatting is complete.

- **Quick Format:** check this option if you want to format the disk more quickly than doing a full format.

- **Format Disk**: click this button to start formatting the disk. Only re-writable discs may be formatted (CD-RW, DVD-RW).

Copy to — the Copy To dialog box will be displayed allowing you to copy your order to another location such as a USB drive or network drive.
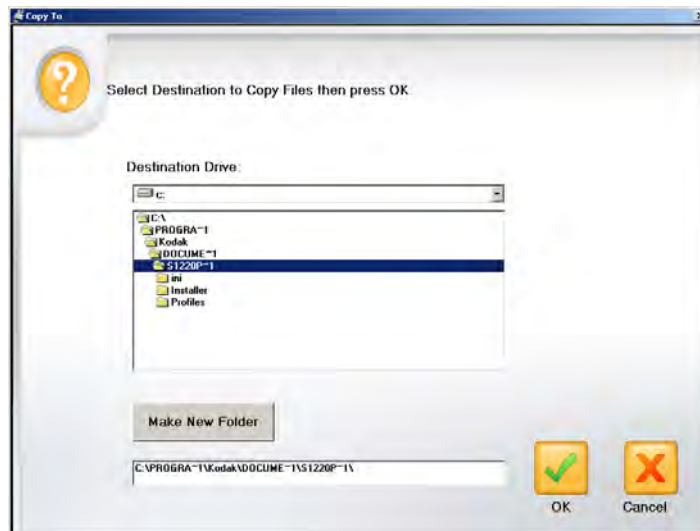
NOTE: To optionally create a new folder, enter a new folder name into the text box below the **Make New Folder** button, then click **Make New Folder**.

4 Scanning Photos

Contents

Getting your scanner ready to scan

Even though your scanner can be tilted to an upward and downward position, it is strongly recommended that you scan your photos in the downward position.

Downward position

1. Be sure the scanner is on and ready to scan (green indicator light is on and constant).

2. Press and hold the tilt button and rotate the scanner away from you to place your scanner in the downward position.

   IMPORTANT: When using the tilt feature, be sure the scanner cover is closed.

3. Adjust the side guides (by sliding them in or out) to accommodate the size of the photos you are scanning.

4. Adjust the input tray. You can scan photos with the input tray open or closed. Feed your photos with the input tray open if you are scanning a batch of photos.

Input tray - open position   **Input tray - closed position**

If space is limited and you want to close the input tray, you can easily feed photos one at a time.

5. Adjust the output tray to accommodate your scanning needs.

• The standard output tray can be positioned so it lies flat on the table. This position works well for scanning a few photos at a time.

• The output tray can be extended to accommodate photos up to 14 inches in length.

Getting your photos ready to scan

1. When organizing your photos for scanning, stack the photos so the edges are aligned and centered in the input tray. This allows the feeder to introduce photos into the scanner one at a time.

2. Remove all staples and paper clips before scanning. Staples and paper clips on photos may damage the scanner and photos.

3. Any inks and correction fluids on the photos must be dry before scanning is started.

4. Place the photos you want to scan in the input tray of the scanner. Be sure the side of the photo(s) you want to scan is face up (see below).

NOTE: If you want to keep your photos in a specific order, do the following:

Take your photos and place them face down on the table. Take your first batch from the top of this stack and place them face up in the scanner.

For example, if your stack has 9 photos, you would place them face down on the table so that photo 1 is facing the table, and the back of photo 9 is on the top of the stack. If you take the first 5 photos on the top of this stack (9,8,7,6,5) and place them face up in the scanner and scan them, as the scanner empties, place the rest of the photos (4,3,2,1) in the scanner face up.

Example 1
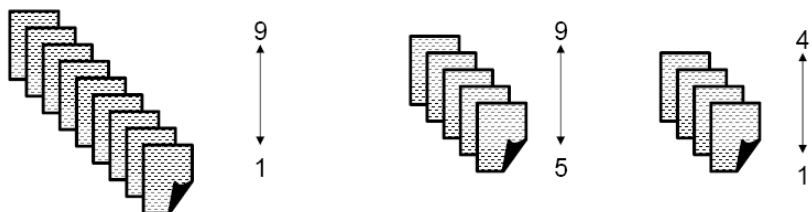
When the stack is completely scanned, the software will reorder the image files so that photo 1 will be image 1 and photo 9 will be image 9, etc. When you are using this method, do not stop the scanner during scanning, otherwise the photos will not be in the desired order. You may want to increase the transport timeout using this method.

Alternatively, take your photos and place them face up on the table. Take the first batch from the top of this stack and place them face up in the scanner. Select **Batch Scan**. When the stack is completely scanned and the scanner has stopped, place another stack in the scanner and select **Batch Scan**. When you are using this method, the scanner should be allowed to stop after each batch is scanned, otherwise the photos will not be in the desired order.

Example 2
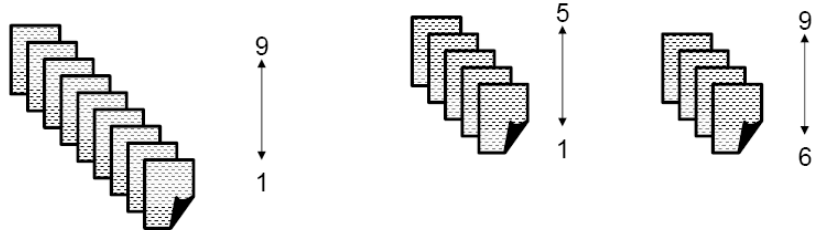
Photo	Prior versions	This version
1	XXXX_09.jpg	XXXX_01.jpg
9	XXXX_01.jpg	XXXX_09.jpg

Handling guidelines

Before scanning a batch of photos, review the following guidelines to save time and improve efficiency. Refer to Chapter 6, *Achieving Good Quality Images* for detailed information regarding photo handling and the importance of scanner cleanliness.

- **Handle photos with care**! Be sure your hands are clean or wear clean white cotton gloves. Avoid touching the photographic surface.

- Fragile or precious photos should be scanned using the *Kodak* A3 or A4 Flatbed Accessory to eliminate the risk of damage from automated handling.

- Use the scanner in a clean, dust-free environment.

- Cover the scanner when it is not in use.

- Avoid unnecessary bending and flexing of photos.

- Due to copyright laws, any professionally taken photos that are copyrighted cannot be scanned without written permission from the owner.

- Two-sided photo scanning:
    - If you have a batch of photos where both sides of some photos need to be scanned, group these photos together and scan them in a separate batch. This will save time deleting unwanted blank images.
    - If you need to rescan a two-sided photo, select the side you want to rescan.

- If you have a batch of photos that need color enhancement, brightness adjustment, etc., group these photos together. When you select **Retouch Batch** after scanning, the application software enhances the entire batch of images at the same time.

- When you delete an image in a display of 16 on the Enhance Picture screen, the display will shift to include the first image from the next group of 16 images to be displayed.

- If you use **Sharpen Image** at 600 or 1200 dpi, the processing time will be significantly increased. This option is not recommended for grayscale images.

Scanning your photos

Before you begin, be sure the s1220 Photo Scanner is on and in the Ready state and the USB software dongle is inserted in a USB port on your PC.

1. Double-click on the s1220 Photo Scanner Software shortcut on the desktop, or select **Start>Programs>Kodak>Document Imaging>s1220 Photo System>s1220 Photo Scanner**. A splash screen will be displayed while the system initializes then the Customer Order Information screen will be displayed.

2. Enter up to 51 alphanumeric characters in the *Order #* field to identify this order. You must make an entry in this field.

3. If desired, enter the *last name, first name, phone, street, city, state/county/country, zip/post code* and *email* information in the available fields.

4. Select **Continue**. The Scan Images screen will be displayed.

5. Place the first batch of photos in the scanner's input tray (for a Batch Scan) or as a single photo on the flatbed platen (for a Flatbed Scan). Depending on your *Mode* selection (i.e., **Photos Face Up**), be sure the side you want to scan is facing properly.

NOTES:

• For best feeding performance always scan the photos with the scanner body tilted to the downward position and with photos face up and oriented as shown below.

• Photos will be fed into the scanner from the bottom of the stack. Therefore, if you want your photos scanned in a specific sequence, feed your photos as described in the section entitled, "Getting your photos ready to scan" earlier in this chapter.

6. Select **Image Cleaner Tool** if you want the scanner to attempt to eliminate any streaks in the image after scanning.

7. Click **Settings** if you want to change any of the default scan settings (i.e., mode, resolution, sharpen images, etc.).

NOTE: You can change the settings anytime before starting a Batch or Flatbed scan.

8. Click **Batch Scan** or **Flatbed Scan**. The message *Scanner lamps are warming* may be displayed. Scanning will start when the lamps are ready (usually within a few seconds).

NOTES:

• If you are using an optional *Kodak* A4 Flatbed or *Kodak* A3 Flatbed, the photo must always be placed face down on the platen.
• When **Batch Scan** is selected, you have 1 to 20 seconds to place photos into the s1220 Photo Scanner depending on the transport timeout value.

As photos are being scanned, the scanned images will be displayed in the 16-Up Display window.
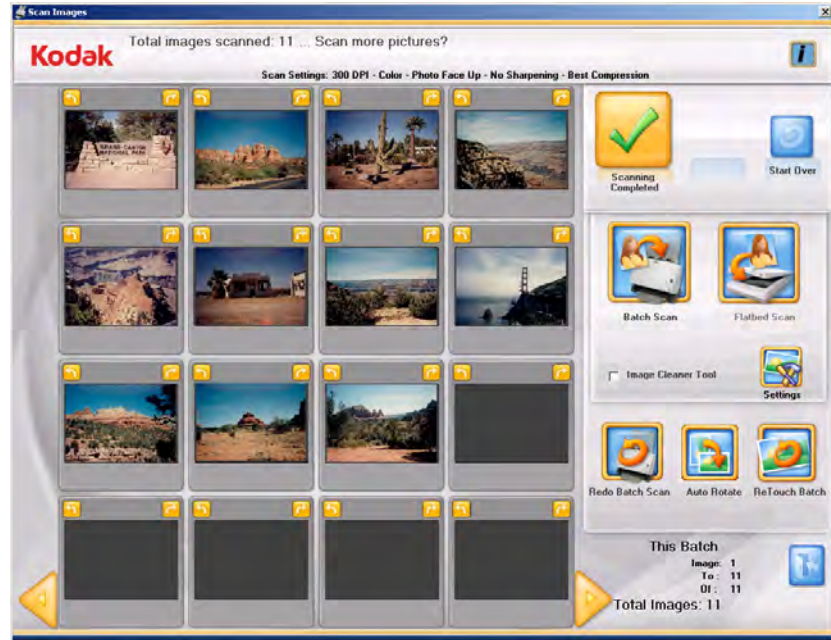
9. If you do not need to make any changes and are finished scanning all photos in this customer's order, click **Scanning Completed**.

10. If you want to scan more photos, make enhancements, etc. these options are available:

- If you want to scan another batch of photos for this order, place more photos in the input tray and click **Batch Scan.**

- If you want to scan a single photo using the A3/A4 Flatbed Accessory, place the photo on the flatbed and click **Flatbed Scan.**

- Use the rotate arrows on each displayed image to rotate as desired, or select **Auto Rotate** for the s1220 Photo Scanning Software to make every attempt to automatically rotate images to the correct orientation. This option works effectively for photos with faces; therefore, some photos may still need to be rotated manually.

- If you want to enhance the colors, contrast, brightness, etc. of all of the color images in the scanned batch, click **Retouch Batch**.

- If you want to rescan and replace the last flatbed or batch of scanned images, place the stack of photos back in the input tray or flatbed and click **Redo Batch Scan**. The 16-Up Display window will be cleared, and the rescanned images will be displayed on the screen.

- If you want to edit an individual image (e.g., rotate, delete, retouch, etc.), click on the image you want to enhance. The Enhance Picture screen will be displayed.

11. Make any desired changes, then click **Continue**. The message *Are you done scanning this order?* will be displayed.

12. Click **Yes**. The Order Preview screen will be displayed.
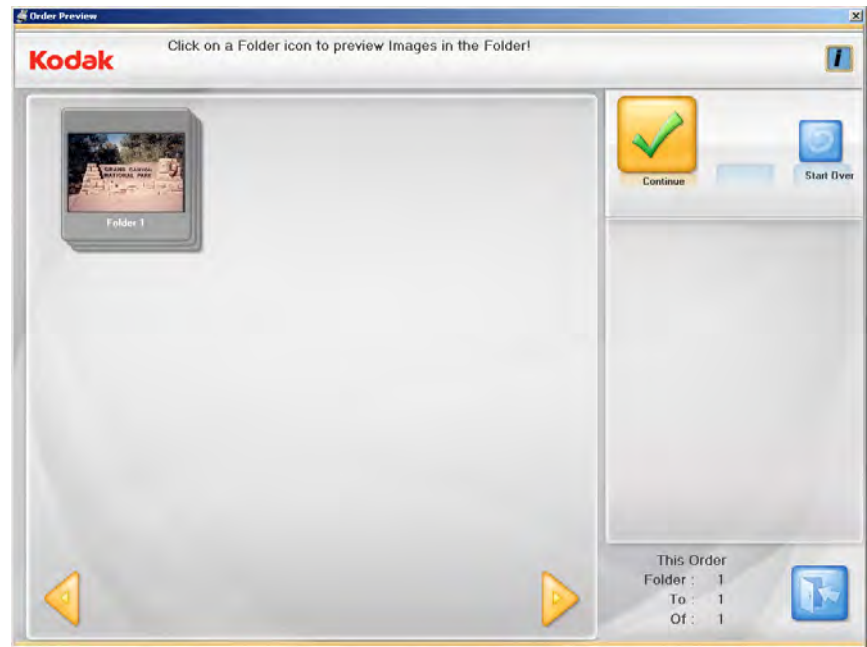
13. Select the folder that you want to preview.

The Preview Details screen will be displayed.

14. From the Preview Details screen you can make any final changes. When finished, click **Continue**.

The Order Preview screen will be displayed.
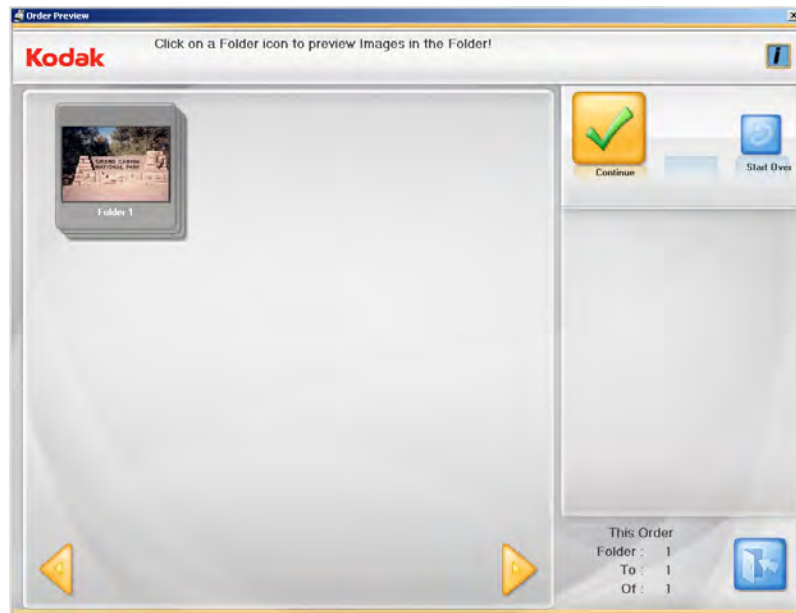
15. If you want to review the contents of the folder one more time before finishing your order, select the desired folder, otherwise, click **Continue**.

The Order Summary & Creation screen will be displayed.
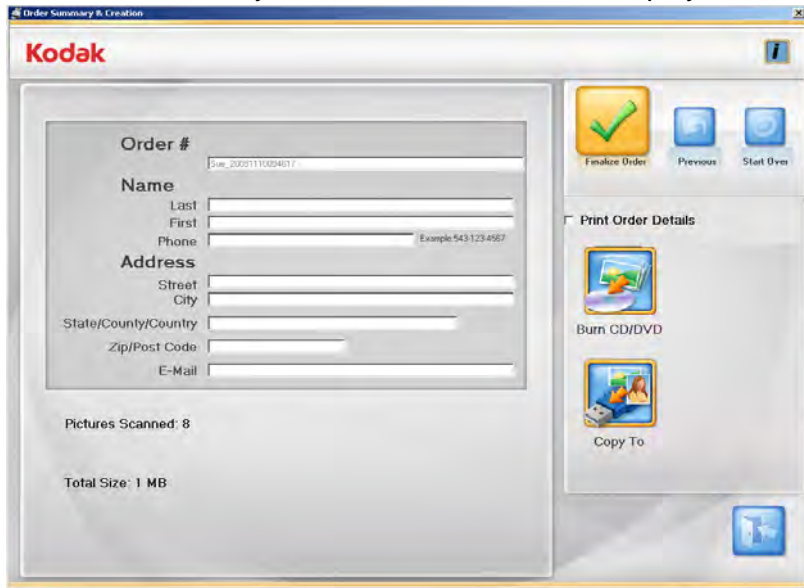
16. Verify that all the information in the order summary is complete. Edit customer information if desired.

- If you want to print the order summary, check the **Print Order Details** check box. When you click **Finalize Order**, the Print dialog box will be displayed allowing you to print the order summary.

- If you want to burn a CD or DVD, click **Burn CD/DVD** and make your selections on the Burn CD/DVD screen.
- If you want to Copy your order to another location, click **Copy** to to select the desired destination.

When you are finished, the message *Do you want to start a new Kodak s1220 Scan Session?* will be displayed.

17. If you want to start a new scan session, click **Yes**. Otherwise, click **No** to close the *Kodak* s1220 Photo Scanning Software.

Unless you changed the default at installation, scanned images can be found at **C:\Scanned_Pictures**. These images can be handled in a variety of ways: uploaded to a photo management system, burned to CD/DVD, printed, emailed, etc.

When the order is finalized, an .xml file will also be created that contains information about that customer order. The .xml file can be found within the scanned images directory.

5 Maintenance

Contents

Opening the scanner cover

1. Before opening the scanner cover, be sure the input tray is in the open position and, if the optional output tray and/or dangler are attached, remove them.

2. Press and hold the scanner cover release lever and pull the scanner cover down.

3. When you finish cleaning the scanner or replacing a part, close the scanner cover with both hands.

Cleaning procedures

Your scanner needs to be cleaned periodically. If your photos do not feed easily, if several photos feed at the same time or if streaks appear on your images, it is time to clean your scanner. The section entitled, "Supplies and consumables" at the end of this chapter provides a listing of the supplies required to clean your scanner.

IMPORTANT: Use only non-flammable cleaners such as those provided through Kodak Parts Services. Do not use household cleaners.

Allow surfaces to cool to ambient temperature before use. Do not use cleaners on hot surfaces.

Use adequate ventilation. Do not use cleaners in confined areas.

NOTES:

- Before beginning cleaning procedures, disconnect the electrical power.

- Wash your hands with soap and water after performing maintenance procedures.

Cleaning the rollers

1. Open the scanner cover.

2. With a roller cleaning pad, wipe the feed rollers from side to side. Rotate the feed rollers to clean the entire surface.
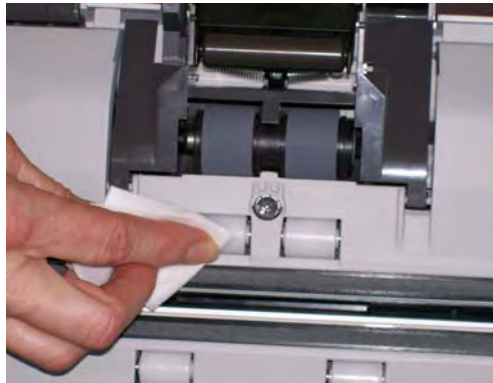
IMPORTANT: The roller cleaning pad contains sodium lauryl ether sulfate which can cause eye irritation. Refer to the MSDS for more information.

3. Dry the rollers with a lint-free cloth.

Cleaning the separation module

The separation module should be removed from the scanner for best cleaning results.

1. Push the separation module up to snap out and lift it out of position.

2. Manually rotate and wipe the separation module tires with a roller cleaning pad.

3. Inspect the separation module.

   If the separation module tires show signs of wear or damage, replace the tires or the separation module. See "Replacement procedures" for more information.

4. Insert the separation module by aligning the tabs with the slots and snapping it into position.

Cleaning the feed module

- When removing or cleaning the feed module, it may be easier to access the feed module if you remove the input tray. To remove the input tray, gently push the input tray to the left or right to release the pin from the slot, and lift it out of position.

- Be careful not to damage the paper present sensor when removing or cleaning around the feed module.

1. Pull against the raised edge of the feed module cover and lift it up and out of position.
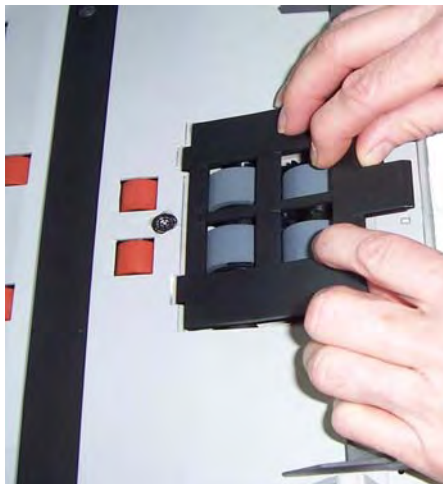
2. Rotate the feed module forward and push it to the left to lift it out of position.
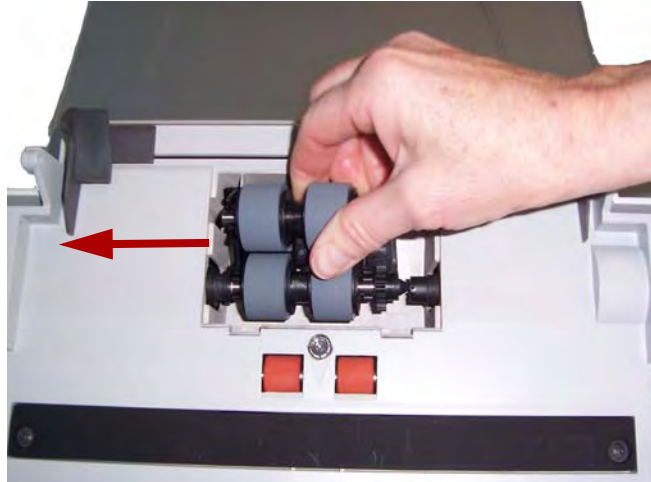
3. Manually rotate and wipe the feed module tires with a roller cleaning pad.

4. Inspect the feed module.

   If the feed module tires show signs of wear or damage, replace the tires or the feed module. See the "Replacement procedures" for more information.

5. Using a vacuum or cleaning pad, remove dust and debris from the feed module area.

6. Reinstall the feed module by aligning the pins and pushing it toward the left to fit it into position. Be sure the gears are aligned and it snaps into place. Roll the feed module back into place.
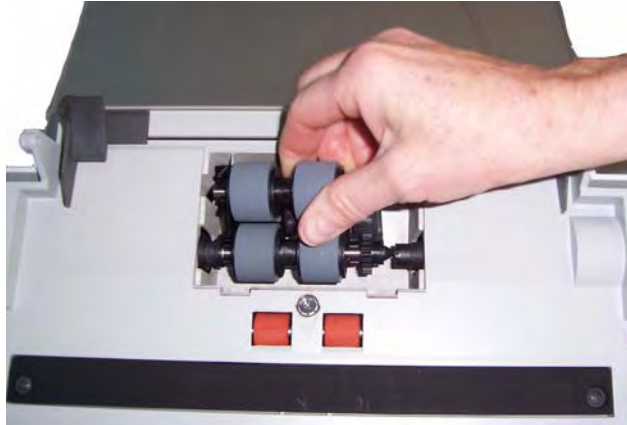
7. Reinstall the feed module cover by aligning the tabs with the slots and pushing it back into position until it snaps into place.

Vacuuming the scanner

Before cleaning the imaging area, it is suggested that you vacuum the inside of the scanner to remove any dust and debris.

Cleaning the imaging area

1. Wipe the upper and lower imaging area using a "Step 1" Brillianize Detailer wipe. Be careful not to scratch the imaging area when cleaning.

2. Wipe the upper and lower imaging area again using the "Step 2" Brillianize Detailer wipe to remove any debris and polish the surface.

3. When finished, close the scanner cover with both hands.

Running a transport cleaning sheet

1. Remove the wrapping from the Transport Cleaning Sheet.
2. Adjust the side guides to fit the cleaning sheet.
3. Place a transport cleaning sheet in the input tray (adhesive side facing you) in portrait orientation.
4. Using your scanning application, scan the transport scanning sheet.
5. After the transport cleaning sheet is scanned, turn it over (adhesive side facing the input tray) and scan it again.
6. Open the scanner cover and wipe the imaging area with a lint-free cloth included with the Brillianize Detailer wipes.
7. Close the scanner cover with both hands.
8. Check your image quality.
9. If necessary, repeat this procedure until all residue is removed from the rollers.

NOTE: When a transport cleaning sheet gets very dirty, discard it and use a new one.

Replacement procedures

Kodak Scanners use replaceable tires that can feed a wide range of document types, sizes and thicknesses. Tire life and performance will vary based on the customer's document set, the frequency of cleaning the paper path and tires, and following the recommended schedule for changing tires. Nominal tire life is approximately 60,000 to 125,000 photos/pages. Usage figures are not guaranteed. Customer-operating environments, document type, the condition of photos being scanned, and not following the recommended cleaning and replacement procedures, can cause the life of the consumables to vary. You should change the tires if you notice an increase in multiple feeds, stoppages, or a decrease in feeder performance that is not resolved by following the cleaning procedures.

NOTES:

- Before beginning replacement procedures, disconnect the electrical power.

- Certain paper types (such as carbonless paper or newsprint), failure to clean regularly, and/or use of non-recommended cleaning solvents can shorten roller life.

Replacing the separation module and tires

1. Push the separation module up to snap out and lift it out of position.

- If you are replacing the separation module, insert the new separation module by aligning the tabs with the slots and snapping it into position.

- If you are replacing the tires, continue with Step 2.

2. Holding onto the separation module, rotate the release lever back so you can access the separation roller.

CAUTION: Use caution as the release lever is spring-loaded and will snap back if you do not hold it in place.

3. Remove the separation roller from the separation module housing.

4. Remove each tire by sliding the tire off the core.

5. Install each new tire by gently pulling it over the core.

   IMPORTANT: Do not overstretch the tire, it may tear.

6. Reinstall the separation roller in the separation roller housing. Be sure the separation roller snaps into place.

7. Reinstall the separation module by aligning the tabs with the slots and snapping it into position.

Replacing the pre-separation pad

The *Kodak* s1220 Photo Scanner is shipped with the pre-separation pad un-installed. If you need to install or replace the pre-separation pad, follow these steps.

1. Remove the separation module from the scanner by following the steps previously described in "Replacing the separation module and tires".

2. Hold the separation module in both hands and locate the two side tabs which protrude slightly from the back of the separation module.

3. Push down on the side tabs until the pre-separation pad protrudes slightly from the front of the separation module.

4. Grasp the pre-separation pad and pull it out of the separation module.

5. Discard the worn pre-separation pad.

6. Align the side tabs of a new pre-separation pad with the slots on the separation module.

7. Push the pre-separation pad firmly in the slots until the pre-separation pad flap rests lightly against the separation module tires.

8. Reinstall the separation module by aligning the tabs with the slots and snapping it into position.

Replacing the feed module and tires

NOTE: The paper present sensor is located to the right of the feed module. Be careful not to damage the paper present sensor when removing or cleaning around the feed module.

1. Push against the raised edge of the feed module cover and lift it up and out of position.
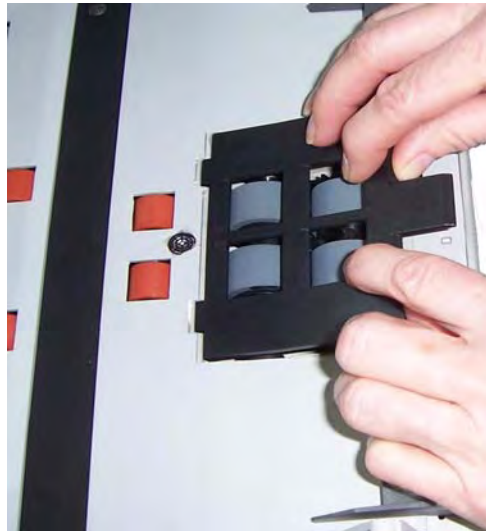
2. Rotate the feed module forward and push it to the left to lift it out of position.
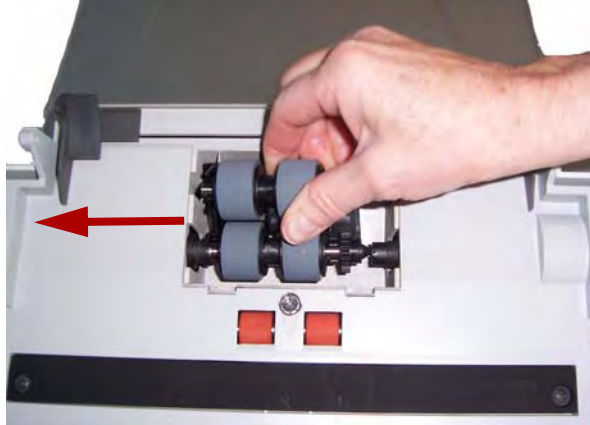
- If you are replacing the feed module, insert the new feed module by aligning the pins and pushing it toward the left to fit it into position. Be sure the gears are aligned and it snaps into place, then go to Step 8.

- If you are replacing the tires, continue with Step 3.

3. Remove one core assembly by lifting up and out of position.

4. Remove each tire by sliding the tire off the core.

5. Install each new tire by gently pulling it over the core.

   IMPORTANT:Do not overstretch the tire; it may tear.

6. Replace the core assembly in the feed module. You may need to slide the shaft to the right or left so the core fits properly within the feed module housing.

7. Repeat the replacement procedure outlined above for the other core assembly.

8. Reinstall the feed module.

9. Reinstall the feed module cover by aligning the tabs in the slots and pushing the feed module cover down until it snaps into place.

Adjusting the pre-separation roller tension

If you are experiencing multi-feeds or document jams, it may be necessary to adjust the pre-separation roller tension.

1. Remove the separation module from the scanner by following the steps described previously in "Replacing the separation module and tires".

2. Locate the spring on the separation module.

3. Lift the spring from the holder and move it to the left or right as desired to adjust the tension.

4. When finished, reinsert the separation module by aligning the tabs with the slots and snapping it into position.

Supplies and consumables

Contact your scanner supplier to order supplies.

Description	CAT No.
Kodak Feed Rollers / for i1200/i1300 Series Scanners (qty. 12)	148 4864
Kodak Separation Module / for i1200/i1300 Series Scanners	173 6115
Kodak Feed Module / for i1200/i1300 Series Scanners	826 9607
Kodak Digital Science Roller Cleaning Pads (qty 24)	853 5981
Kodak Digital Science Transport Cleaning Sheets (qty 50)	169 0783
Brillianize Detailer Wipes / for *Kodak* Scanners	826 6488
Optics Cleaner Pad	868 3724

NOTE: Items and catalog numbers are subject to change.

6   Achieving Good Quality Images

Contents

Scanning environment

Dirt and dust can hinder photo scanning operations by adding streaks to digital images. Dirt and dust can also promote scratching of photos, both during and after scanning.

Follow these recommendations to keep your scanning environment as clean as possible:

- Vacuum the scanner and the surrounding area frequently.

- Keep your scanning environment as free from dirt and dust as possible. Use care when dusting surfaces around the scanner. Dusting quickly and carelessly just redistributes dust in other surrounding areas.

- Use the dust cover when the scanner is not in use. When removing the dust cover from the scanner, if the dust cover has accumulated dust, carefully remove the dust cover and shake it free of dust in a location away from the scanner.

- Use the scanner in an area where the relative humidity is at least 50%. Dry environments leads to static which promotes the accumulation of dust.

Handling Photographs

Be sure your photos are clean before scanning them. Scanning dirty photos may cause more dirt and dust to accumulate in the scanner. To minimize dirt and dust build-up in the scanner and prevent possible streaking, consider the following:

- **Wear gloves** — wearing cotton gloves while handling photographs may reduce the oils from your hands getting on the photos and minimize the amount of dirt and dust that collects in the scanner.

- **Cleaning photos** — gently vacuum older prints that appear to be dusty. An alternative approach to cleaning photos is to use a microfiber cloth (included with the Brillianze Detailer wipes) or similar wipes available from a photo retailer, which are lint-free, ultra-soft disposable non-abrasive wipes. They are safe to use on emulsions, optics, scanners and CD's. Dust should always be removed in a way that will not harm the original photo.

- **Adhesives** — sticky substances such as glue and other album-related adhesives on photos, can be transferred to the imaging area of the scanner. Remove the adhesive with appropriate cleaners. Photos with adhesive substances can also be scanned from the *Kodak* A3 or A4 Flatbed Accessory thus preventing these substances from gathering in the scanner.

- **Uncurling photos** — photos that have significant curl may not transport effectively through the scanner. If possible, stacks of photos may be safely uncurled before scanning.

  NOTE: Photos that are severely curled can either be rotated 90 degrees so the curl is not in the direction of the transport or scanned from the *Kodak* A3 or A4 Flatbed Accessory.

- **Fanning photos** — for reliable feeding, fan the photos before scanning.

- Always place a blank placeholder top sheet on top of the stack of photos being scanned. This top sheet protects the top photo from tire marks as the last photo before the top sheet is fed into the scanner. This top sheet is a good place to record customer information since it will be scanned with the photos.

Keeping your scanner clean

For best scanning results it is suggested that you frequently perform a *quick* cleaning sequence in between your routine, *thorough* cleaning procedures. This level of cleaning can be done frequently, perhaps as often as every 100 prints or when streaks appear on an image(s). Refer to Chapter 5, *Maintenance* for detailed cleaning procedures.

To do a quick cleaning:

1. Open the scanner cover and look at the imaging area for any noticeable dust particles.

2. Wipe the imaging area with a microfiber cloth to remove any loose dust particles.

3. After wiping the glass, re-inspect for any visible dust particles.

4. Close the scanner cover and evaluate the subsequent scans. If streaking or other problems remain, it may be necessary to do a more thorough cleaning. You can:

   • Wipe the imaging area with Brillianize Detailer wipes. These wipes provide an excellent, alcohol-free cleaning process. This two-step process includes a wet de-static wipe and a dry silicon-based polish that leaves the scanner with a clean, clear, anti-static finish.

   • Run a transport cleaning sheet through the scanner to pick up loose dust particles, especially on the rollers. Depending on how dirty the scanner is, these sheets can be used several times. Discard the cleaning sheet when it is very dirty.

   • For more extensive cleaning, see Chapter 5.

Photo scanning

For the best scanning results the following is suggested:

- Place your photos face-up in the input tray. This orientation minimizes scratching of the print emulsion.

- The *Kodak* s1220 Photo Scanner is shipped with the pre-separation pad un-installed. If you encounter problems when feeding photos through the scanner, especially curled photos, the pre-separation pad can be installed. For pre-separation pad installation procedures, see "Replacing the pre-separation pad" in Chapter 5, *Maintenance*.

IMPORTANT: Use caution when scanning photos with the pre-separation pad installed. Internal testing has shown a higher risk of scratching on the prints.

Reducing streaks

The *Kodak* s1220 Photo Scanning System software has been enhanced to reduce the occurrence of streaks in your images. The best method to obtain streak-free images is to keep the scanner imaging area clean. The Photo Scanning System software provides an option called **Image Cleaner tool**. When this option is checked, the software will attempt to remove any streaks that may occur in a scanned image from the dust in the scanner. In most cases, corrections are either undetectable or very hard to detect. However, based on the size of the streak and the image content where the streak exists, there may be a slightly observable correction artifact remaining. In almost all cases, this correction artifact is preferable to the actual streak.
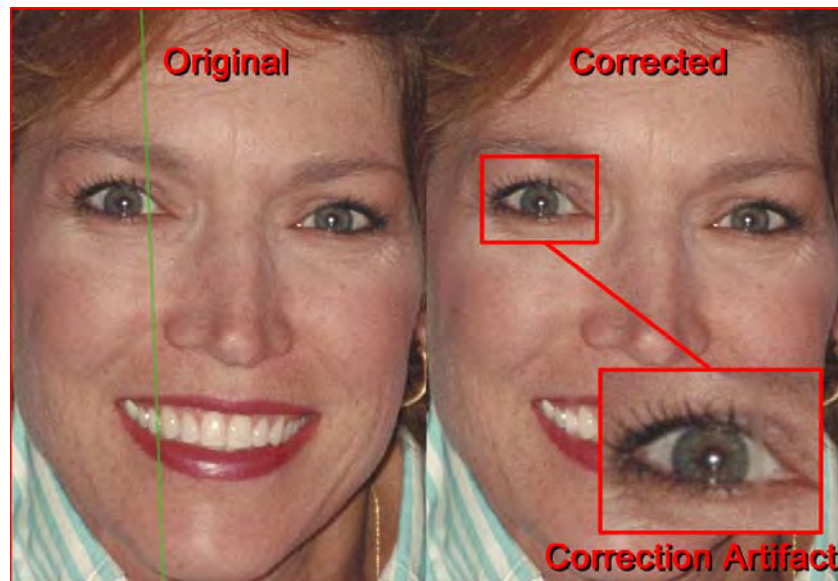
Monitoring Streaks — viewing thumbnails during scanning may not provide enough information to ensure a streak-free scan. Third-party applications can be used to adequately screen for streaks. Scans should be viewed at full screen. It is best to scan photos in smaller batches (approximately 50) then review these images with a third-party viewing application.

Banding

Banding can occur when photos are curled in landscape orientation and fed through the scanner. If you experience an issue with curled photos that generate horizontal bands on images, it is suggested that you rotate the photos by 90 degrees and feed the photos in the scanner so the curl is not in the direction of the transport. This may eliminate or minimize the banding.

NOTE: It is suggested that you feed photos *top first* to minimize banding in light areas at the top of photos.

Place a blank placeholder top sheet on top of the stack of photos being scanned. This top sheet can reduce banding and also protects the top photo from tire marks as the last photo before the top sheet is fed into the scanner. This top sheet is a good place to record customer information since it will be scanned with the photos.

7 Troubleshooting

Contents

Problem solving

Occasionally you may encounter a situation with your scanner where it may not function properly. Use the chart below as a guide to check possible solutions to help you resolve the situation before calling Technical Support.

Problem	Possible Solution
Photos are jamming or multiple photos are feeding	Make sure that: • the side guides are adjusted for the width of the photos you are scanning. • the output tray is adjusted for the length of the photos you are scanning. • all photos meet the specifications for size, weight and type as outlined in Appendix A, *Specifications*. • the scanner and tires are clean. • the spring on the pre-separation module is adjusted to the proper tension. See the procedures in Chapter 5, *Maintenance*. • the feed module and pre-separation module are installed properly and securely in place. See the procedures in Chapter 5, *Maintenance*. • Photos sometimes stick due to static electricity. Fan the photos and make sure the ambient humidity is sufficient. **To remove a photo jam:** *IMPORTANT: Be sure the input tray is **up** before opening the cover. Do not pull the jammed photo out of the scanner; open the scanner cover first.* • Open the scanner cover. • Remove any jammed photo(s) from inside the scanner. • Close the scanner cover and resume scanning.

Problem	Possible Solution
Scanner will not scan/feed photos	Make sure that: • the power cord is plugged securely into the back of scanner and the wall outlet. • the power supply, green LED is lit. • the power switch is on. • the wall outlet is not defective (call a licensed electrician). • the PC was restarted after installing the software. • photo(s) is making contact with the feed rollers. If you are feeding several photos in the upright position, and the transport will not start, it may be necessary to fan the bottom photos so the feed rollers can grasp the first photo and start the feeding process, or use the tilt button to rotate the scanner in the downward position.
Application display windows and screens are distorted	Check the dpi settings in the Display Properties. The settings should be set to Normal size, 96 dpi with 32-bit color.
No images are being displayed	• Be sure the side you want to scan is facing forward (not the input tray). For more information, see the section entitled, "Getting your photos ready to scan" in Chapter 4, *Scanning Photos*.
Images are not being cropped correctly	• Images are not being cropped correctly from the batch scanner. Rescan and adjust the side guides for the width of the photos you are scanning. • Images are not being cropped correctly from the flatbed. Try placing a contrasting background behind the photograph and rescan.
Roller marks appear on the photo after scanning	Clean the rollers. See the procedures in Chapter 5, *Maintenance*.
Streaks are running through a color photo	• The scanner is dirty and needs to be cleaned. Refer to the "Cleaning procedures" in Chapter 5, *Maintenance*. • Select the **Image Cleaner tool** option on the Scan Images screen to eliminate or minimize streaks. • Also see the "quick cleaning" procedure in Chapter 6.
Scanner is running slow	• Your PC may not meet the minimum requirements for the scanner. • The scanner is rated and designed to operate with USB 2.0, but will function in a USB 1.1 port. If you are using a USB 1.1 connection, update your connection to USB 2.0. • Scanning photos at 600 or 1200 dpi will scan slower.
Cannot scan after Standby or Hibernate with Microsoft Windows Vista	• Upgrade to Service Pack 2. • Disable USB power management settings on your PC for this scanner.

Installation issues

- Unless you changed the default at installation, scanned images can be found at **C:\Scanned_Pictures**. These images can now be handled in a variety of ways: uploaded to a photo management system, burned to CD/DVD, printed, emailed, etc.

- The s1220 Photo Scanning System uses Microsoft .NET Framework 2.0. If .NET Framework 2.0 is not installed on the PC, it will be installed during installation.

- If a security software application is installed on the PC, you may be asked whether you want to allow or deny installation of the s1220 Photo Scanning System. Select **Allow** or **Yes**. If you inadvertently select **Deny** or **No**, open the security software application and set the permission to *Allow* the installation of the s1220 Photo Scanning System.

- Close any currently running scanner applications or applications that use a USB software dongle before starting the s1220 Photo Scanning System installation and power down any attached scanners.

- The USB software dongle should be plugged into a USB 2.0 port directly on the PC, not into a USB hub that is then plugged into a PC USB port. Plugging a USB 2.0 hub into a USB 1.1 port can cause the WIBU software to not load automatically (see the next issue).

- If after installation of the application and plug-in of the USB software dongle, the WIBU software does not automatically load, a message may be displayed asking for the WIBU installation disk. Select that you have the software disk and choose the CD drive with the s1220 Photo Scanning System Installation CD. This will complete the WIBU software installation.

Application issues

- The *Kodak* s1220 Photo Scanning System has a fixed screen size of 1024 x 768. You may want to change the taskbar properties by unselecting "Keep the taskbar on top of other windows." This will keep the taskbar from covering the lower portion of the application when the screen resolution is set at 1024 x 768. You can also alternatively set the display properties to a higher screen resolution than 1024 x 768, such as 1280 x 1024 so the application does not cover the entire desktop.

- If the scanner encounters **E9 Document Jams** when scanning at higher resolutions (600 or 1200 dpi) and the PC's RAM is less than 3GB, then the memory should be increased to the required 3GB RAM for high resolution scanning.

Conflicts with other applications

Some image viewers and backup programs that monitor the hard drive for new image files may access files in the output folder while in use by the s1220 Photo Scanning System. This may cause functions (Retouch, Rotate and Auto-Rotate) to not work properly. Turn off watched folder and backup synchronization functionality for other image products when scanning photos or uninstall the products. The HP TouchSmart Cyberlink Media Library Service (CLMLSvc.exe) and Western Digital SmartWare and Memeo Sync backup software are known to cause problems.

Application configuration

The s1220 Photo Scanning System may be configured by modifying the PrintScan.ini file in the directory specified below for your particular Windows operating system. You can change the location for the output JPG files (Target_Path) and adjust the folder size for burning CDs or DVDs. The maximum folder size can be changed by specifying a new value for the CDFolderSize and DVDFolderSize parameters in the PrintScan.ini file.

A3 and A4 Flatbed scanner rotation may be set using the FlatbedRotation parameter.

Reversing the order of the photo faceup scans may be enabled/disabled using the ReverseFaceUp parameter.

The default values for other parameters are preset to optimal values or set by the Scan Settings screen and generally do not need to be modified.

Additional guidance for changing specific parameters may be found in the PrintScan.ini file.

PrintScan.ini folder location

Windows XP:
C:\Documents and Settings\All Users\Application Data\kds_Kodak\s1220 Photo System

Windows Vista and Windows 7:
C:\ProgramData\kds_Kodak\s1220 Photo System

NOTE: These folders may be hidden. If so, you may need to go into the Windows operating system to display them.

CD/DVD burning

An administrator may provide CD/DVD burning permissions for limited user rights.

To reach appropriate group permissions panel in Window XP:

1. Click **Start**.

2. Click **Run**.

3. Type **gpedit.msc**.

4. Click **OK**.

5. In the Group policy interface, expand **Computer Configuration,** expand **Windows Settings,** expand **Security Settings,** expand **Local Policies** and double-click **Security Options**.

6. Set **Devices: Restrict CD-ROM access to locally logged-on user only** to **Enabled**.

7. Set **Devices: Allowed to format and eject removable media** to **Administrators** and **Power Users** or to **Administrators** and **Interactive Users**.

Error codes

Use the table below as a guide to check possible solutions to problems you may encounter when using the *Kodak* s1220 Photo Scanning System.

Error Code	Message	Description
	Access to destination folder XXXX could not be set exiting the application.	Verify that there is a valid Target_Path for the scanned photos in the PrintScan.ini file.
	Burn CD/DVD button is disabled.	Run as Administrator or have the administrator give limited rights users permission to burn CD/DVDs. Refer to Chapter 7, *Application Configuration*.
10, 11, 12, 23	Failure to communicate with the scanner. Please retry. If this error persists, please contact Support with error code XX.	Verify that the s1220 Scanner is attached, turned on and the green LED is on and steady. If the error persists, contact Kodak Service.
105, 106, 107, 108, 109	Failure to communicate with the flatbed scanner. Please retry. If this error persists, please contact support with error code 10X.	Verify that the flatbed is attached properly to the s1220 Scanner. If the error persists, contact Kodak Service.
110, 111, 112, 113, 114	Image Cleaner Tool failure. Please retry. If this error persists, please contact support with error code 11X.	Contact Kodak Service.
186	System configuration error. Please contact Kodak support. Exiting....	If the problem persists, contact Kodak Service.
1001	Error Code: 1001. Installation error. Could not fetch image processing defaults. Please check PrintScan.ini. Exiting...	Verify that a valid PrintScan.ini file exists. Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
1002	Error Code: 1002. Could not read image processing defaults from s1220.Profile. Continuing with default settings.	Verify that a valid s1220.Profile file exists. Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
1003	Error Code: 1003. s1220 Driver version incorrect. Refer to s1220 Photo Scanner User's Guide, Chapter 7 for more information.	The s1220 Photo Scanning System software does not support the i1220 Plus Scanner drivers. Do not install those drivers for the s1220 Photo Scanning System. To re-install the s1220 Photo Scanner drivers, turn off the s1220 Photo Scanner and run the SetupFW_i1200_ v2.23.exe from the i1220 folder on the KODAK s1220 Photo Scanning System Software CD. Reboot the PC then power on the s1220 Photo Scanner. This will re-install the correct version of the s1220 Photo Scanner drivers.
1120	Image Cleaner Tool failure. Please retry. If this error persists, please contact support with error code XXXX.	If the problem persists, contact Kodak Service.
251085: 1220	Start error. *Kodak* s1220 Photo Scanning System copy protection error. No license found.	Verify that the supplied s1220 USB software dongle is plugged into a USB 2.0 port on the PC.
4000	CD/DVD burning is not supported	• Run as **Administrator** or have the administrator give limited rights, users permission to burn CD/DVDs. Refer to Chapter 7, *Application Configuration*. • Verify a CD/DVD burner is installed on the PC.
4001	Please install Windows Feature Pack for Storage.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
4002	Delegate Function error.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.

Error Code	Message	Description
4003	Recorder not supported.	Not all brands of CD/DVD burners are supported by the *Kodak* s1220 Photo Scanning System. Try using another burner such as an external USB CD/DVD burner. If you are using XP, upgrade to Vista or Windows 7 or use the software application that came with the CD/DVD burner to burn the CD/DVD.
4004	Error getting supported recorder types.	Not all brands of CD/DVD burners are supported by the *Kodak* s1220 Photo Scanning System. Try using another burner such as an external USB CD/DVD burner. If you are using XP, upgrade to Vista or Windows 7 or use the software application that came with the CD/DVD burner to burn the CD/DVD.
4005	Write failed.	Not all brands of CD/DVD burners are supported by the *Kodak* s1220 Photo Scanning System. Try using another burner such as an external USB CD/DVD burner. If you are using XP, upgrade to Vista or Windows 7 or use the software application that came with the CD/DVD burner to burn the CD/DVD.
4006	Media Detection Error.	Verify that appropriate media has been inserted into the CD/DVD burner, the burner has had time to spin up, and the media is writable and has not been closed / finalized.
4007	File or Folder Does Not Fit on Disc.	Verify that appropriate media has been inserted into the CD/DVD burner, the burner has had time to spin up, and the media is writable and has not been closed / finalized.
4008	Create File System Error.	Verify the selected files and folders will fit on the CD/DVD media.
4009	Error adding file.	Verify a file with that name does not already exist on the CD/DVD media and that the media has sufficient free space for the files.
4010	Error adding folder.	Verify a folder with that name does not already exist on the CD/DVD media and the media has sufficient free space for the folder.
4011	Erase Media failed.	Verify that appropriate media has been inserted into the CD/DVD burner, the burner has had time to spin up, and the media is re-writable.
4012	Error Burning Disc!	Verify that appropriate media has been inserted into the CD/DVD burner, the burner has had time to spin up, and the media is writable and has not been closed / finalized.
4013	Error Formatting Disc!	Verify that appropriate media has been inserted into the CD/DVD burner, the burner has had time to spin up, and the media is re-writable.
6017	Please check if the correct USB license dongle has been inserted in your PCs USB port. If this error persists, please contact support with error code 6017.	Verify that the supplied s1220 USB software dongle is plugged into a USB 2.0 port on the PC.
6XXX	Please check if the correct USB License dongle has been inserted into your PCs USB port. If this error persists, please contact support with error code 6XXX.	Verify that the supplied s1220 USB software dongle is plugged into a USB 2.0 port on the PC.

Error Code	Message	Description
7000	Please check if WIBU runtime has been installed. WIBU runtime (WkRuntime.exe) can be found on the CD provided with the Kodak scanner.	Contact Kodak Service.
7001	License .dat file not found. Please contact support with error code 7001.	Contact Kodak Service.
8001	Profile error. Please verify that STW default profile settings have not been altered. If this error persists, please contact support with error code 8001.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
8002	Scanner name not found. Please verify that STW default profile settings have not been altered. If this error persists, please contact support with error code 8002.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
9001, 9002, 9003	TWAIN drivers could not be started. Please retry. If this error persists, please contact support with error code 900X.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to the section entitled, "Installing the Kodak driver software" in Chapter 2.
9004	Could not find a Kodak scanner.	Be sure that the s1220 Scanner is attached, turned on and the green LED is on and steady. If the error persists, contact Kodak Service.
9005	Please check if scanner is available to STW.	Verify that the s1220 Scanner is connected and powered on. If the error persists, contact Kodak Service.
9006, 9007, 9008, 9010	Could not connect to the scanner. Please retry. If this error persists, please contact support with error code 900X.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
9009	Could not get the image from the scanner. Please retry. If this error persists, please contact support with error code 9009.	Contact Kodak Service.
9011	Could not run the scanner. Please retry. If this error persists, please contact support with error code 9011.	Reinstall the *Kodak* s1220 Photo Scanning System. Refer to Chapter 2, *Installation*.
XXXX	Could not connect to scanner. Please retry. If this error persists, please contact support with error code XXXX.	Verify that the supplied s1220 USB software dongle is plugged into a USB 2.0 port on the PC.
	Error writing to file PrintScan.ini.	Verify that a valid PrintScan.ini file exists. Reinstall the *Kodak* s1220 Photo Scanning System. Refer to the section entitled "Application configuration" in this chapter.

LED codes

Following is a listing of the codes that may be displayed in the Function window. When an error occurs, the red indicator will blink and a number is displayed in the Function window.

Code	Problem	Remedy
E 0	USB cable is not connected or the device drivers have not recognized the scanner.	Be sure the USB cable is securely connected to the scanner and PC or un-install and re-install the device drivers.
E 1 - E 5 E 7; E 8	Scanner failure	Turn the scanner off, then on again. Restart the scanning application and try again. If the problem persists, contact Kodak Service.
E 6	Scanner cover open	Close the scanner cover.
E 9	Document jam	Open the scanner and remove any paper in the paper path.

NOTE: The numbers 1-9 may be displayed when the scanner's LED is green. These are not error codes; they are Function numbers used together with the Scroll and Start buttons and Smart Touch functionality.

Contact information

1. Visit www.Kodak.com/go/disupport to obtain the most current phone number for your country.

2. When calling, please have the following information ready:

   - A description of your problem.
   - The scanner serial number.
   - Computer configuration.
   - Software application you are using.

Appendix A   Specifications

This appendix provides scanner specifications and system requirements.

Scanner Type/Speed	*Kodak* s1220 Photo Scanner — a duplex scanner which provides scanning at up to 30 photos per minute in color at 300 dpi.
Scanning Technology	CCD type Grayscale output bit depth is 256 levels (8-bit) Color capture bit depth is 48 bits (16 x 3) Color output bit depth is 24 bits (8 x 3)
Output Resolutions	300, 600 and 1200 dpi
File Format Output	Single-page JPEG photo scanning
Minimum Photo Size	63.5 x 50 mm (2.5 x 2 in.)
Maximum Photo Size	**Scanner** — 215 x 863 mm (8.5 x 34 in.) **A4 Flatbed** — 219 x 300 mm (8.62 x 11.81 in.) **A3 Flatbed** — 302 x 461 mm (11.92 x 18.15 in.)
Paper Weight	34 g/m^2 to 413 g/m^2 (9 to 110 lbs.)
ADF Capacity	Up to 25 mixed-size photos per batch; continuous feeding of photos is supported; document feeder capacity of up to 75 sheets, handling weights up to 34-413 g/m² (9-110 lb.) paper; ID card thickness: up to 1.25 mm (0.05 in.)
Recommended Daily Volume	1,500 photos
Illumination	Dual Fluorescent (cold cathode)
Electrical requirements	100 - 240 V (international), 50/60 Hz
Scanner Dimensions	**Height**: 246 mm / 9.7 in. (not including input tray) **Width**: 327.7 mm / 12.9 in. **Depth**: 162 mm / 6.3 in. (not including input tray and output tray)
Scanner Weight	5.5 kg (12 lbs)
Host Connection	USB 2.0
Operating Temperature	10°C to 35°C
Humidity	10 to 85%
Environmental Factors	Energy Star qualified scanners
Power Consumption - Scanner	Off mode: <4 watts Running: <46 watts
Power Consumption - with A3 Flatbed	Off mode: $\leq$6 watts Running: <65 watts
Power Consumption - with A4 Flatbed	Off mode: $\leq$6 watts Running: <57 watts
Acoustic Noise (Sound Pressure level)	Operating: less than 58 dB(A) Off mode: less than 30 dB(A)
Bundled Software	*Kodak* s1220 Photo Scanning Software

System requirements

Following is the minimum recommended system configuration to run the *Kodak* s1220 Photo Scanning System:

- 3.2 GHz processor, 250 MB free hard disk space, 1 GB RAM for 300 dpi (2 GB for Windows 7) or 3 GB RAM for 600 and 1200 dpi (4 GB for Windows 7)
- Two USB 2.0 ports (1 for the scanner, 1 for the USB software dongle)
- Supported operating systems. All operating systems must support USB 2.0 with administrator privileges for installation:
    - Microsoft Windows XP, Service Pack 3
    - Windows Vista, Service Pack 2
    - Windows Vista, 64-bit, Service Pack 2
    - Windows XP 64, Service Pack 2
    - Windows 7, 32-bit
    - Windows 7, 64-bit
- Microsoft .NET Framework 2.0 (included on the Installation CD)

NOTE: Depending on how you want to manage the images after scanning, you will need supporting devices such as; CD/DVD Writer, photo printer, etc.

Appendix B   Warranty - US and Canada only

Congratulations on the purchase of a *Kodak* Scanner. *Kodak* Scanners are designed to provide end users with the highest performance and reliability. All *Kodak* Scanners are covered by the following Limited Warranty.

Limited Warranty for *Kodak* Scanners

Eastman Kodak Company provides the following Limited Warranty on *Kodak* Scanners (excluding spare parts and consumables) distributed by Kodak or through Kodak's authorized distribution channels:

Kodak warrants that a *Kodak* Scanner, from the time of sale through the Limited Warranty period applicable to the Product, will be free of defects in materials or workmanship and will conform to the performance specifications applicable for the particular *Kodak* Scanner.

All *Kodak* Scanners are subject to the Warranty Exclusions described below. A *Kodak* Scanner found to be defective or which does not conform to the product specifications will be repaired or replaced with new or refurbished product at Kodak's option.

Purchasers may determine the applicable Limited Warranty period for the *Kodak* Scanners purchased by calling (800) 822-1414, or by visiting www.Kodak.com/go/disupport or by reviewing the Limited Warranty Summary Card enclosed with the *Kodak* Scanner.

Proof of purchase is required to demonstrate eligibility for warranty service.

Warranty exclusions

Kodak's Limited Warranty does not apply to a *Kodak* Scanner that has been subjected to physical damage after purchase, caused, for example, by casualty, accident, acts of God or transportation, including (a) by a failure to properly package and ship the Scanner back to Kodak for warranty service in accordance with Kodak's then current Packaging and Shipping Guidelines, including failure to replace the shipping restraint prior to shipping, or by a failure to remove the shipping restraint prior to use; (b) resulting from the user's installation, system integration, programming, re-installation of user operating systems or applications software, systems engineering, relocation, reconstruction of data, or removal of the product or any component (including breakage of a connector, cover, glass, pins, or seal); (c) from service, modification or repair not performed by Kodak or a service provider authorized by Kodak or by tampering, use of counterfeit or other non-Kodak components, assemblies, accessories, or modules; (d) by misuse, unreasonable handling or maintenance, mistreatment, operator error, failure to provide proper supervision or maintenance, including use of cleaning products or other accessories not approved by Kodak or use in contravention of recommended procedures or specifications; (e) by environmental conditions (such as excessive heat or other unsuitable physical operating environment), corrosion, staining, electrical work external to the product or failure to provide electro-static discharge (ESD) protection; (f) by failure to install firmware updates or releases available for the product and (g) by such other supplemental exclusions published from time to time online at www.Kodak.com/go/disupport or by calling (800) 822-1414.

Kodak provides no Limited Warranty for products purchased from countries other than the United States. Purchasers of products from foreign distribution channels must seek warranty coverage, if any, through the original source of purchase.

Kodak provides no Limited Warranty for products that are purchased as part of a third party manufacturer's product, computer system or other electronic device.

Any warranty for these products is provided by the OEM (Original Equipment Manufacturer) as part of that manufacturer's product or system.

The replacement product assumes the remainder of the Limited Warranty period applicable to the defective product or thirty (30) days, whichever is longer.

Installation Warning and Disclaimer

KODAK WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE SALE, INSTALLATION, USE, SERVICING OR IMPROPER FUNCTIONING OF THIS PRODUCT, REGARDLESS OF THE CAUSE. SUCH DAMAGES FOR WHICH KODAK WILL NOT BE RESPONSIBLE, INCLUDE, BUT ARE NOT LIMITED TO, LOSS OF REVENUE OR PROFIT, LOSS OF DATA, DOWNTIME COSTS, LOSS OF USE OF THE PRODUCT, COST OF ANY SUBSTITUTE PRODUCT, FACILITIES OR SERVICES OR CLAIMS OF CUSTOMERS FOR SUCH DAMAGES.

If there is any conflict between other sections of this appendix and the Limited Warranty, the terms of the Limited Warranty prevail.

How to obtain Limited Warranty service

Kodak Scanners are supplied with information on unpacking, setup, installation and operation. Careful reading of the User's Guide will answer most of the technical questions the end user might have regarding proper installation, operation and maintenance of the product. However, should additional technical support be required, you may visit our website at: www.Kodak.com/go/disupport or contact:

Kodak's Response Center: **(800) 822-1414**

The Response Center is available Monday – Friday (excluding Kodak holidays) 8 a.m. to 5 p.m. EST.

Before placing the call, the eligible purchaser should have the *Kodak* Scanner model number, part number, serial number and proof of purchase available. The eligible purchaser should also be prepared to provide a description of the problem.

Response Center personnel will assist the end user in resolving the problem over the phone. The end user may be asked to run some simple, self-diagnostic tests and report the resulting status and error code messages. This will assist the Response Center in determining if the problem is the *Kodak* Scanner or another component and if the problem can be resolved over the phone. If the Response Center determines a hardware problem exists that is covered either under the Limited Warranty or a purchased Maintenance Agreement, a Return Material Authorization Number (RMA) will be assigned as needed, a service request will be initiated and repair or replacement procedures will follow.

Packaging and shipping guidelines

Purchaser must ship all warranty returns in a method that guarantees full protection of the product from shipping damage. Failure to do so will void the *Kodak* Scanner warranty. Kodak advises the purchaser to keep the original box and packing materials for storing or shipping. Kodak is not responsible for issues related to shipping damage. The purchaser must return only the *Kodak* Scanner. Prior to shipment, purchaser must remove and retain all "add-on" items, (i.e. adapters, cables, software, manuals, etc.). Kodak accepts no responsibility for these items and they will not be returned with the repaired or replacement *Kodak* Scanner. All products should be returned to Kodak in the original shipping container, or an authorized packaging box for the units being returned. Purchaser must install the shipping restraint before the *Kodak* Scanner is shipped. When the original packaging is not available, contact Kodak's Response Center at (800) 822-1414 for part numbers and replacement packaging ordering information.

Return procedure

Eligible purchasers seeking services for *Kodak* Scanners covered under this Limited Warranty must obtain a Return Material Authorization number ("RMA") by calling (800) 822-1414 and within ten (10) business days from the date of issuance of the RMA must return the *Kodak* Scanner to the address designated in the RMA at the end user's own expense and risk, in compliance with Kodak's current Packaging and Shipping Guidelines.

Any defective products or parts replaced by Kodak become the property of Kodak.

Customer responsibility

BY REQUESTING SERVICE, THE ELIGIBLE PURCHASER ACKNOWLEDGES THE TERMS OF THE LIMITED WARRANTY, INCLUDING THE DISCLAIMER AND LIMITATION OF LIABILITY PROVISIONS. PRIOR TO SEEKING SERVICE, THE END USER MUST BACK-UP ANY DATA OR FILES THAT MAY BECOME DAMAGED OR LOST. KODAK IS, WITHOUT LIMITATION, NOT RESPONSIBLE FOR LOST OR DAMAGED DATA OR FILES.

Warranty Service descriptions

Eastman Kodak Company (Kodak) offers a range of service programs to support its Limited Warranty and to assist with the use and care of the *Kodak* Scanner ("Service Methods"). A *Kodak* Scanner represents an important investment. *Kodak* Scanners provide the productivity needed to stay competitive. The sudden loss of this productivity, even temporarily, could seriously affect the ability to meet commitments. Downtime can be very expensive, not just in the cost of the repair but also in time lost. To help alleviate these problems, Kodak may use one of the service methods listed below, depending upon product type, in providing service under its Limited Warranty.

Included with selected *Kodak* Scanners is a Limited Warranty Registration card and a Limited Warranty Summary card. The Limited Warranty Summary card is specific by model. The Limited Warranty Summary card contains important warranty information, including the model number and the Limited Warranty. Refer to the Limited Warranty Summary card to determine the available Service Methods applicable to the particular *Kodak* Scanner.

If the Limited Warranty Registration card or Limited Warranty Summary card cannot be located, additional information may be obtained about the product, including updated warranty and service program information and restrictions, online at www.Kodak.com/go/disupport or by phone at (800) 822-1414.

To avoid service delays, Kodak urges end users to complete and return the enclosed Limited Warranty Registration Card at the first opportunity. If you cannot locate the Limited Warranty Registration card, you may register online at www.Kodak.com/go/disupport or by phone at (800) 822-1414.

Kodak also provides a variety of service programs that may be purchased to assist with the use and care of the *Kodak* Scanner.

Kodak is committed to providing its customers with quality, performance, reliability and service under the Limited Warranty.

On-site service

For the selected *Kodak* Scanner, and after the Response Center verifies a hardware problem, a service call will be opened and logged. An Kodak Field Engineer will be dispatched to the product location to perform repair service if the product is located within the contiguous forty-eight (48) United States, in certain areas of Alaska and Hawaii, and if there are no security, safety or physical requirements that would restrict the Field Engineer's access to the scanner. For additional information on service areas, visit our website at: www.Kodak.com/go/docimaging. On-Site Service will be provided between the hours of 8 a.m. and 5 p.m. local time, Monday through Friday (excluding Kodak holidays).

AUR

AUR may be one of the easiest and most comprehensive service offerings in the industry. In the unlikely event of a product defect, for eligible purchasers of certain *Kodak* Scanners, Kodak will replace that product within two business days.

The AUR provides advance replacement on specific failed or broken *Kodak* Scanner. To be eligible to take advantage of the AUR, the eligible purchaser must obtain an RMA number, sign an Advance Replacement Agreement and provide a credit card deposit to secure the replacement product. The RMA number should be kept in the event that the status of the replacement product needs to be checked. The eligible purchaser will be asked for the address where the replacement product is to be shipped. The eligible purchaser will also be faxed packing and shipping instructions for the malfunctioning product. The eligible purchaser will then receive a replacement product within 2 business days after the service call initiation and Kodak's receipt of the signed agreement. The malfunctioning product must be received by Kodak within ten (10) days of the end user's receipt of the replacement product or the end user's credit card will be charged the list price of the replacement product. Shipment of replacement Imaging Product will be made at Kodak's expense and choice of freight carrier. Shipments not made under Kodak's directions and choice of freight carrier may void the Limited Warranty.

Before the product is returned to Kodak, be sure to remove all options and accessories (which include power cord, documentation, etc.) that are not covered by the Limited Warranty. The box and packaging in which the replacement product was shipped must be used to return the malfunctioning product. If the malfunctioning product is not returned in the box and packaging in which the replacement product was shipped the Limited Warranty may be voided. The Return Material Authorization Number ("RMA") must be clearly marked on the outside of the box to ensure proper receipt and credit of the defective product.

Depot service

If the *Kodak* Scanner is not eligible for Advance Exchange or On-Site Service, an eligible purchaser may utilize our Depot Repair Service. The eligible purchaser will be instructed to ship the product to the nearest authorized Depot Repair Center. Product must be shipped at the eligible purchaser's risk and expense to the repair center. Before the product is returned to the repair center, be sure to remove all options and accessories (which include power cord, documentation, etc.) not covered by the Limited Warranty. All products should be returned to Kodak in the original shipping container, or in a recommended packing box. The *Kodak* Scanner must have the shipping restraint installed before it is shipped. When the original packaging is not available, contact Kodak's Response Center at (800) 822-1414, for ordering information. Eligible purchasers seeking services for *Kodak* Scanners must obtain a Return Material Authorization number ("RMA") by calling (800) 822-1414, and within ten (10) business days from the date of issuance of the RMA must return the *Kodak* Scanner to the address designated in the RMA at the end user's own expense and risk. The Return Material Authorization Number ("RMA") must be clearly marked on the outside of the box to ensure proper receipt and credit of the defective product.

Upon receipt of the product, the repair center will repair product within ten (10) business days. The repaired product will be shipped back two-day express mail at no expense to the eligible purchaser.

Important restrictions

Eligibility: The Advance Exchange Program and the Depot Service are available to eligible purchasers in the fifty (50) United States, and On-Site Service is available in the contiguous forty-eight (48) states and in certain areas of Alaska and Hawaii for products purchased from authorized distributors of Kodak. The *Kodak* Scanner will be ineligible for any service under warranty if the product falls under any of Kodak's then-current Warranty Exclusions, including a purchaser's failure to return defective products to Kodak in compliance with Kodak's then current Packaging and Shipping Guidelines. Persons are only considered "eligible purchasers" or "end users" if they originally purchased the *Kodak* Scanner for their own personal or business use, and not for resale.

Consumables: Consumables are items that wear out under normal use and must be replaced by the end user as needed. Consumables, supplies, other expendable items and those items identified as being the user's responsibility in the User's Guide are not covered under the Limited Warranty.

If any of the above excluded parts or services are required, they may be available through an authorized service provider at their hourly rates and at terms then in effect.

Any defective products or parts replaced by Kodak become the property of Kodak.

Contacting Kodak

For Information on *Kodak* Scanners:

Website: www.Kodak.com/go/docimaging

For U.S. Service, Repair and Technical Assistance by Telephone:

Telephone technical support is available Monday-Friday between the hours of 5 a.m. to 5 p.m. excluding Kodak holidays.
Phone: (800) 822-1414

For Technical Documentation and FAQ's available 24 hours a day:

Website: www.Kodak.com/go/docimaging

For Service Program Information

Website: www.Kodak.com
Phone: (800) 822-1414