International ENERGY STAR® Compliance Statement

The purpose of the International ENERGY STAR® Program is to promote the development and popularization of energy-efficient office equipment.
SAFETY INFORMATION

This section contains detailed instructions on the operation and maintenance of this machine. To achieve optimum utility of this device, all operators should carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

Make sure you observe all of the precautions listed in this manual.

* Please NOTE that some parts of the contents of this section may not correspond with the purchased product.

Warning and Precautions Symbols

| WARNING: | Ignoring this warning could cause serious injury or even death. |
| CAUTION: | Ignoring this caution could cause injury or damage to property. |

Meaning of Symbols

A triangle indicates a danger against which you should take precautions.

This symbol warns against possible burns.

A dialog line indicates a prohibited course of action.

This symbol warns against dismantling the device.

A Black circle indicates an imperative course of action.

This Symbol indicates you must unplug device.
SAFETY INFORMATION

WARNING

- Do not modify this product, as a fire, electrical shock, or breakdown could result. If the product employs a laser, the laser beam source could cause blindness.
- Do not attempt to remove the covers and panels which have been fixed to the product. Some products have a high-voltage part or a laser beam source inside that could cause an electrical shock or blindness.
- Do not remove or exchange the fuse of this product, as a fire, electrical shock, or breakdown could result.

- Only use the power cord supplied in the package. If a power cord is not supplied, only use the power cord and plug that is specified in POWER CORD INSTRUCTION. Failure to use this cord could result in a fire or electrical shock.
- Use the power cord supplied in the package only for this machine and NEVER uses it for any other product. Failure to observe this precaution could result in a fire or electrical shock.
- Use only the specified power source voltage. Failure to do that could result in a fire or electrical shock.
- Do not use a multiple outlet adapter to connect any other appliances or machines. Use of a power outlet for more than the marked current value could result in a fire or electrical shock.

- Do not unplug or plug in the power cord with a wet hand, as an electrical shock could result.

- Plug the power cord all the way into the power outlet. Failure to do this could result in a fire or electrical shock.

- Do not scratch, abrade, place a heavy object on, heat, twist, bend, pull on, or damage the power cord. Use of a damaged power cord (exposed core wire, broken wire, etc.) could result in a fire or breakdown.
  Should any of these conditions be found, immediately turn OFF the Power Switch, unplug the power cord from the power outlet, and then call your authorized service representative.
- Do not use an extension cord, in principle. Use of an extension cord could cause a fire or electrical shock. Contact your authorized service representative if an extension cord is required.
## WARNING

- Do not place a flower vase or other container that contains water, or metal clips or other small metallic objects on this product. Spilled water or metallic objects dropped inside the product could result in a fire, electrical shock, or breakdown. Should a piece of metal, water, or any other similar foreign matter get inside the product, immediately turn OFF the Power Switch, unplug the power cord from the power outlet, and then call your authorized service representative.

- Do not keep using this product if it becomes inordinately hot or emits smoke, or unusual odor or noise. Immediately turn OFF the Power Switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result.

- Do not keep using this product, if this product has been dropped or its cover damaged. Immediately turn OFF the Power Switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result.

- Connect the power cord to an electrical outlet that is equipped with a grounding terminal.

## CAUTION

- Do not use flammable sprays, liquids, or gases near this product, as a fire could result.
- Do not let any object plug the ventilation holes of this product. Heat could accumulate inside the product, resulting in a fire or malfunction.
- Do not install this product at a site that is exposed to direct sunlight, or near an air conditioner or heating apparatus. The resultant temperature changes inside the product could cause a malfunction, fire, or electrical shock.
- Do not place the product in a dusty place, or a site exposed to soot or steam, near a kitchen table, bath, or a humidifier. A fire, electrical shock, or breakdown could result.
- Do not place this product on an unstable or tilted bench, or in a location subject to a lot of vibration and shock. It could drop or fall, causing personal injury or mechanical breakdown.
- After installing this product, mount it on a secure base. If the unit moves or falls, it may cause personal injury.
### CAUTION

- Do not place any objects around the power plug as the power plug may be difficult to pull out when an emergency occurs.

- The socket-outlet shall be installed near the machine and shall be easily accessible as the power plug may be difficult to pull out when an emergency occurs.
- Always use this product in a well ventilated location. Operating the product in a poorly ventilated room for an extended period of time could injure your health. Ventilate the room at regular intervals.
- Whenever moving this product, be sure to disconnect the power cord and other cables. Failure to do this could damage the cord or cable, resulting in a fire, electrical shock, or breakdown.
- When moving this product, always hold it by the locations specified in the User’s Guide or other documents. If the unit falls it may cause severe personal injury. The product may also be damaged or malfunction.
- Remove the power plug from the outlet more than one time a year and clean the area between the plug terminals. Dust that accumulates between the plug terminals may cause a fire.
- When unplugging the power cord, be sure to hold onto the plug. Pulling on the power cord could damage the cord, resulting in a fire or electrical shock.

### Precautions for Routine Use

- Do not use this product in an area where ammonia or other gases or chemicals are present. Failure to do so may shorten the service life of the product, cause damage or decrease performance.
- Do not use this product in an environment with a temperature outside the range specified in the User’s Guide, as a breakdown or malfunction could result.
INFORMATIONS DE SÉCURITÉ

Cette section contient des instructions détaillées sur l'utilisation et l'entretien de cette machine. Pour obtenir un rendement optimal de cette machine, il est imperative que toutes les personnes l'utilisant lisent attentivement et observent scrupuleusement les consignes de ce manuel. Veuillez conserver ce manuel en lieu sûr, à proximité de la machine.

Veuillez observer toutes les consignes de sécurité énumérées dans ce manuel. Veuillez NOTE r que certaines informations contenues dans cette section pourraient ne pas correspondre à votre produit.

Symboles d'avertissement et de précaution

<table>
<thead>
<tr>
<th>WARNING:</th>
<th>Le non-respect de cet avertissement pourrait causer de graves blessures, voire un accident mortel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAUTION:</td>
<td>Le non-respect de cette précaution pourrait causer des blessures ou des dommages matériels.</td>
</tr>
</tbody>
</table>

Signification des symboles

- Un triangle indique un danger potentiel requérant certaines précautions.
- Ce symbole vous met en garde contre des risques de brûlures.
- Une diagonale dans un cercle désigne une interdiction.
- Ce symbole signifie qu'il est interdit de démonter l'appareil.
- Un cercle noir désigne une procédure obligatoire.
- Ce symbole signifie que vous devez débrancher l'appareil.
### WARNING

Ne modifiez pas ce produit, car cela risquerait de causer un incendie, une électrocution ou une panne de l'appareil. Si ce produit comporte un laser, sachez que l'exposition au rayon laser pose un risque pour les yeux.

N'essayez jamais de démonter les couvercles et panneaux montés sur le produit. Certains produits renferment des composants de haute tension ou une source de rayon laser qui risqueraient de causer une électrocution ou des lésions aux yeux. Ne pas retirer ou d'échanger le fusible de ce produit, comme un incendie, d'électrocution ou une panne peut en résulter.

Utilisez uniquement le cordon d'alimentation contenu dans l'emballage. Si le cordon d'alimentation n'est pas fourni, veillez à vous procurer uniquement un cordon avec fiches conformes aux INSTRUCTIONS POUR LE CORDON D'ALIMENTATION. Le non-respect de cette consigne risquerait de provoquer un incendie.

Utilisez le cordon d'alimentation contenu dans l'emballage uniquement avec cette machine; ne l'utilisez JAMAIS avec aucun autre appareil. Le non-respect de cette consigne risquerait de provoquer un incendie ou une électrocution.

Utilisez uniquement la tension d'alimentation spécifiée. Le non-respect de cette consigne risquerait de provoquer un incendie ou une électrocution.

N'utilisez jamais d'adaptateur multi-prise pour alimenter simultanément d'autres appareils ou machines. Le branchement à une prise de courant délivrant une tension supérieure aux spécifications risquerait de provoquer un incendie ou une électrocution.

N'ébranchez ni débranchez jamais le cordon d'alimentation avec des mains mouillées car cela risquerait de provoquer une électrocution.

Branchez le cordon d'alimentation à fond dans la prise de courant. Le non-respect de cette consigne risquerait de provoquer un incendie ou une électrocution.

Veillez à ne jamais entailler, user, chauffer, tordre, déformer ni placer d'objet lourd sur le cordon d'alimentation. L'utilisation d'un cordon d'alimentation endommagé (dont un fil est rompu ou à nu, etc.) risquerait de provoquer un incendie ou une électrocution.

Si le cordon présente un de ces endommagements, mettez immédiatement l'appareil HORS tension, débranchez son cordon d'alimentation et contactez un centre de SAV. N'utilisez pas de rallonge. L'utilisation d'une rallonge risquerait de provoquer un incendie ou une électrocution. Contactez un centre de SAV si vous souhaitez un cordon d'alimentation plus long.
### WARNING

Ne posez jamais de vase ou tout autre récipient contenant de l’eau, ainsi que de petits objets métalliques tels que des trombones sur l’appareil. Si le récipient venait à être renversé ou des objets métalliques venaient à tomber dans l’appareil, cela risquerait de provoquer un incendie, une électrocution ou une panne de l’appareil. En cas de pénétration de liquide, d’objet métallique ou de tout autre objet à l’intérieur de l’appareil, mettez immédiatement l’appareil HORS tension avec son interrupteur d’alimentation, débranchez son cordon d’alimentation de la prise de courant et contactez un centre de SAV.

Si cet appareil venait à chauffer anormalement ou dégageait de la fumée, une odeur ou un bruit anormal, cessez immédiatement de l’utiliser. Mettez immédiatement l’appareil HORS tension avec son interrupteur d’alimentation, débranchez son cordon d’alimentation de la prise de courant et contactez un centre de SAV. Le non-respect de cette consigne risquerait de provoquer un incendie ou une électrocution. En cas de chute de l’appareil ou d’endommagement de son boîtier, cessez immédiatement d’utiliser l’appareil. Mettez immédiatement l’appareil HORS tension avec son interrupteur d’alimentation, débranchez son cordon d’alimentation de la prise de courant et contactez un centre de SAV. Le non-respect de cette consigne risquerait de provoquer un incendie ou une électrocution.

Branchez le cordon d’alimentation à une prise de courant pourvue d’une broche de mise à la terre.

### CAUTION

INFORMATIONS DE SÉCURITÉ

**CAUTION**

Ne posez aucun objet à proximité de la prise de courant alimentant le cordon car cela risquerait de gêner l’accès au cordon et son retrait en cas d’urgence.

Veillez à ce que la prise de courant alimentant l’appareil se trouve à proximité de ce dernier et soit facile d’accès afin de permettre un retrait rapide du cordon d’alimentation en cas d’urgence.

Utilisez uniquement cet appareil dans un endroit bien ventilé. Une utilisation prolongée de l’appareil dans une pièce faiblement ventilée pourrait poser un risque pour la santé de l’utilisateur. Veillez à aérer la pièce à intervalles réguliers.

Veillez à toujours débrancher le cordon d’alimentation et tout autre câble avant de déplacer l’appareil. Le non-respect de cette précaution risquerait d’endommager le cordon d’alimentation ou le câble et de provoquer un incendie, une électrocution ou une panne.

Lorsque vous déplacez l’appareil, veillez à toujours le tenir aux endroits indiqués dans le mode d’emploi ou toute autre documentation. Une chute de l’appareil risquerait de causer de graves blessures. Cela pourrait en outre causer une panne et/ou un endommagement de l’appareil.

Veillez à débrancher la fiche du cordon d’alimentation de la prise de courant plusieurs fois par an afin de nettoyer les broches de la fiche.

Toute accumulation de poussière entre les broches de la fiche risquerait de provoquer un incendie.

Quand vous débranchez le cordon d’alimentation, veillez à saisir le cordon par sa fiche. Ne tirez jamais sur le cordon même car cela risquerait de l’endommager et de provoquer un incendie ou une électrocution.

---

**Precautions for Routine Use**

N’utilisez jamais cet appareil en présence d’ammoniaque ou d’autres produits chimiques ou gaz. Le non-respect de cette précaution risquerait de réduire la durée de vie de l’appareil, de causer des dommages ou de réduire ses performances.

N’utilisez jamais cet appareil dans un endroit où la température ambiante sort de la plage spécifiée dans le mode d’emploi, car cela risquerait de causer une panne et/ou un endommagement de l’appareil.
Welcome

Please follow the instructions given in this manual when operating the system and do not touch any part of the system the manual does not cover.
NEVER attempt to disassemble or rebuild the system.
The contents of this manual are subject to change without notice.
No part of this manual may be quoted, reproduced or translated into any other language.
Introduction

Thank you for choosing our Digital Film Scanner “SL1000” (herein after referred to as “the Scanner”).

This User’s Guide includes precautions for installation/operation of the Scanner, a system outline, an explanation of the Driver software, operation procedures for the Scanner, troubleshooting tips, maintenance, and product specifications.

To ensure the best performance and effective use of your unit, read this manual carefully until you familiarize yourself thoroughly with the unit's operation and features.

Please keep this manual and use it as a quick and handy reference tool for immediately clarifying any questions that may arise.

Please also NOTE the following precautions.

Safety Information

All Areas

Use the USB Cable supplied with the equipment. Use of an unshielded cable invites radio frequency interference.

Always refer to this manual when operating the Scanner and do not attempt to touch the Scanner parts for which no explanations are given in the text.

NEVER attempt to disassemble or modify the Scanner, as it is very dangerous.

Call your authorized dealer when you want to move the Scanner, which has been installed.

FCC Part 15 - Radio Frequency Devices (For U.S.A. Users)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

The design and production of this unit conform to FCC regulations, and any changes or modifications must be registered with the FCC and are subject to FCC control. Any changes made by the purchaser or user without first contacting the manufacturer will be subject to penalty under FCC regulations.
Interference-Causing Equipment Standard (ICES-003 ISSUE 4) For Canada Users

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

UL/UL Marking

This equipment has been tested and found to comply with UL60950-1.

CE Marking (Declaration of Conformity) (For European Users)

This product complies with the following EU directives:

This declaration is valid for the area of the European Union (EU) only.
This device must be used with shielded interface cable and shielded network cable.
The use of non-shielded cable is likely to result in interference with radio communications and is prohibited under rules.

We declare under our sole responsibility that the Scanner and options to which this declaration relates is in conformity with the specifications below.
This declaration is valid for the area of the European Union (EU) only.

Trademark Acknowledgments

IBM and IBM PC/AT are registered trademarks of International Business Machines Corporation.
Microsoft, Windows, Windows Vista, Windows 7 and Windows 8 are registered trademarks of Microsoft Corporation.

All other brand or product names are trademarks or registered trademarks of their respective companies or organizations.
This manual consists of the following seven chapters. Chapters 1 and 2 contain basic information about the Scanner, including safety precautions for installation/operation, system configuration, and features. Be sure to read these chapters before using the Scanner.

**Chapter 1 Precautions for Installation and Operation**
Provides safety precautions required to ensure correct installation and operation of the Scanner.

**Chapter 2 Overview**
An overview of the features, system configuration, functions and part names of the Scanner.

**Chapter 3 Application “SL-Touch for SL1000”**
Describes the application “SL-Touch for SL1000”.

**Chapter 4 Operation**
Describes operation precautions and procedures, and settings for each function.

**Chapter 5 Troubleshooting**
Describes error and warning messages that appear on the Personal Computer, and procedures for eliminating these problems.

**Chapter 6 Maintenance**
Describes daily maintenance required for satisfactory operation of the Scanner.

**Chapter 7 Specifications**
Complete specifications of the Scanner.

**NOTE:**
In this manual, important points requiring special attention are described in sections marked with “NOTE ”. Items that appear on the menu screen in the Personal Computer are enclosed by double quotation marks “ ”. Referenced chapters or their titles are shown in brackets [ ].
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Chapter 1
Precautions for Installation & Operation
1 Precautions for Installation

1.1 Installation Environment
Install the Scanner in a location, which meets the following requirements to ensure safe
to operation and utmost performance.

◆ A well-ventilated place
◆ An area which is free from ammonia or other organic gases.
◆ A place which has easy access to a power outlet so that the unit may be easily plugged and
   unplugged.
◆ An area free from direct sunlight
◆ A place which is out of the direct air stream of an air conditioner, heater or ventilator and is
   not subject to extremely high or low temperatures or humidity.
◆ A stable location with a flat surface that is not subject to undue vibration.
◆ A place away from curtains or other objects that catch fire and burn easily
◆ An area that is safe from spilled water or other liquids.
◆ A dust-free location

1.2 Power Source
The Power Source Voltage Requirements are as follows.

◆ Use a Power Source with little voltage/frequency fluctuations.
  Power Source: 50 Hz – 60 Hz
  Voltage Fluctuation: 120 VAC ±10%, 230 VAC ±10%
  Frequency Fluctuation: 50 Hz ±3 Hz
  60 Hz ±3 Hz
◆ Be careful not to exceed the capacity of the outlet, especially when sharing other appliances
  from the same outlet.
◆ The outlet should be located near the unit and be easily accessible so that the Power Cord
  can be unplugged immediately if necessary.
◆ NEVER connect any other appliances or machines by means of a multiple socket to the
  outlet being used for the unit.
◆ If an Extension Cord is needed, use one with a capacity greater than the power consumption
  of the unit.
◆ Make sure that the Power Cord and extension cord do not become caught in any mechanism
  of the system. Do not allow either the power or extension cord to become caught underneath
  the weight of the unit.

1.3 Grounding
Be sure to connect the Ground Wire for the Power Cable to any of the following places to
prevent electrical shocks due to electrical leakage:
◆ Ground Terminal of the outlet
◆ Ground terminal that complies with local electrical standards

NOTE : NEVER connect the Ground Cable to a Gas Pipe, the Ground Wire for a Telephone
Line, or a Water Pipe.
1.4 **Space Requirements**

- Secure the recommended space shown in the figure below to ensure easy operation and maintenance of the Scanner.

[Standard: Fiche Carrier Model]
[Motorized Roll Film Carrier /Manual Roll Film Carrier Model]
2 Precautions for Installation and Operation

2.1 Operating Environment

The following environment is required for consistent performance of the Scanner:
Temperature: 50 to 95°F (10 to 35°C) with temperature variations not exceeding 18°F (10°C) per hour.
Humidity: 15 to 85%RH with humidity variation not exceeding 20% per hour.

2.2 Precautions when operating the Scanner

Observe the following precautions to ensure the optimum performance of the Scanner:
◆ NEVER place any object or exert shock on the Scanner.
◆ NEVER place finger(s) between the glass when operating the Scanner.
◆ NEVER bring any magnetized object or use flammable sprays/liquids near the Scanner.
◆ NEVER place a vase or vessel containing water on the Scanner.
◆ NEVER drop paper clips, staples, or other small pieces of metal into the Scanner. If this occurs, contact your Authorized Dealer.
◆ NEVER remove the Fixed Outer Cover.
◆ ALWAYS completely insert the Power Cord Plug into the Power Outlet.
◆ ALWAYS make sure that the outlet into which the Power Cord Plug is inserted is visible.
◆ NEVER use this device with Power Cords or USB Cables for other electrical devices.
◆ IMMEDIATELY turn the Power Switch OFF, unplug the Power Cord, and call your authorized dealer for appropriate action when the Power Cord or USB Cable of the Scanner has been damaged.
◆ ALWAYS be sure to turn the Power Switch OFF, unplug the Power Cord, and call your authorized dealer for appropriate action when the Scanner becomes excessively hot or produces abnormal noise.

2.3 Precautions when operating the Personal Computer

Refer to the Operation Manual provided for the Personal Computer.
2.4 Moving the Scanner

When moving the Scanner, observe the following:

- When carrying the Scanner, hold as shown in the below figure. Be careful not to hurt your back.
- When moving the Scanner, be sure to disconnect the Power Cord and the USB Cable.
- When transporting the Scanner, contact your authorized dealer.

**CAUTION**

- Never move the Scanner while the Fiche Carrier is pulled out, it could cause trouble. When the Scanner the Fiche Carrier should be pushed all the way into the Scanner.
- Never hold in a manner other than the identified in the figure. Scanner must be held in the area designated in the illustration.
Chapter 2
Overview
1 Features

This Scanner is digital screen-less Scanner that has developed for the microfilm editing to the digital image for a high-speed scanning. There are the following features.

◆ The machine has a small footprint and light weight. And, the installation location is not limited.
◆ The lens exchange is unnecessary, and a super-high magnification optical zoom of (6.8 - 54 x) is equipped, and with "electrical zoom" magnifications up to 8.5 - 105 x.
◆ The film in various types can be read by installing the option.
  * Roll Film/Fiche Carrier, Monochrome(B/W)/Color, Positive/Negative etc,
◆ The optical resolution can be read by the high-resolution with 360dpi (A4 L or Letter L conversion).
  *L = landscape
◆ The color image of the high-resolution can be read by a Color Area CCD Sensor (14.22 Mega pixels).
◆ It is designed by the power saving corresponding to the regulation (Energy Star (US), ErP Directive (EU)).
◆ Special application software (SL-Touch for SL1000) that can be operated by a Touch Panel is standard.
◆ The real-time view (film image) and the image view (preservation image) can be switched with one touch by operating the special application software (SL-Touch for SL1000).
◆ Various options such as an Motorized Roll Film Carrier, Manual Roll Film Carrier, Manual Switch, etc. are also available.
2 Part Identification and Functions

2.1 Main Unit

1. Indicator Lamp: Scanner condition is shown.
2. Fiche Carrier: Film is set to desired position.
3. Fiche Glass: Film held in place.
4. Carrier Handle: To insert, remove or correctly position the fiche film.
5. Grip: The area that the hand is placed when the image position is fine-tuned, and the Fiche Carrier is moved.
6. Power Switch: Turns the Scanner ON/OFF.
7. USB Connector: Connect the USB Cable that is supplied with the equipment.
9. Security Slot: General-purpose security wire (for anti-theft) can be connected through this slot.
11. USB Cable: Connects the Scanner to the Personal Computer.
2.2 Roll Film Carrier (Option)

1. Reel Shaft: Roll Film is inserted.
2. Take-Up Reel: Roll Film is wound.
3. Guide Roller: The Roll Film is guided.
Chapter 3

Application “SL-Touch for SL1000”
1 SL-Touch for SL1000 Setup

It is necessary to install 'SL-Touch for SL1000' in the Personal Computer beforehand to display the image and to take it with a Personal Computer connected with SL1000. This chapter describes the system requirements of the Personal Computer and the installation procedure of 'SL-Touch for SL1000'.

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1.2 System environment

The following are the minimum system requirements for the computer connected to the Scanner to install the Driver. The operator should be completely familiar with basic Windows operations.

<table>
<thead>
<tr>
<th>Computer</th>
<th>Compatible with IBM PC/AT</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows 8: 32 bit, 64 bit</td>
</tr>
<tr>
<td></td>
<td>Windows 7: 32 bit, 64 bit</td>
</tr>
<tr>
<td></td>
<td>Windows Vista: 32 bit, 64 bit SP2 or later</td>
</tr>
<tr>
<td>CPU</td>
<td>INTEL Core i7 or greater</td>
</tr>
<tr>
<td>Memory</td>
<td>4 GB or greater</td>
</tr>
<tr>
<td>Hard disk drive</td>
<td>2 GB of available hard-disk space</td>
</tr>
<tr>
<td>Interface</td>
<td>Hi-Speed USB 2.0</td>
</tr>
<tr>
<td>Optical disc drive</td>
<td>CD-ROM drive</td>
</tr>
<tr>
<td>Display</td>
<td>Display that has screen resolution of 1,280 x 1,024 or greater</td>
</tr>
</tbody>
</table>

Recommended System Requirements

| CPU              | INTEL Core i7 2.93 GHz or faster |
| Memory           | 4 GB or greater                   |
| Hard disk drive  | SATA 3 7200 rpm or greater       |
| Video Card       | GeForce GT430 1 GB or greater    |
| Display          | Display that has a screen resolution of 1,920 x 1,080 |
| Touch Panel      | Multi-touch monitor or display equipped with a Touch Panel |

NOTE ! To use the zoom function with a multi touch panel, the display must be supported by the multi-touch function of Windows 7 or Windows 8.
1.3 Installation the Application Software and the Driver Software

**NOTE**
Must install "SL-Touch for SL1000" before connecting the Scanner.
When the Scanner is connected before "SL-Touch for SL1000" is installed, "Found New Hardware Wizard" is displayed.
In this case, please end the wizard clicking the cancel button.
The driver is installed concurrently with the application.

The following procedure shows the Application Installation for Windows 8.
Administrative rights are needed for the Application Installation.
NOTE : Screens may differ slightly depending on the Windows version.

1 Load the installation CD-ROM in the CD-ROM drive of the Personal Computer. The Auto Play screen will automatically appear. Click “Run launcher.exe”.

**Windows 8**

1. Load the installation CD-ROM in the CD-ROM drive of the Personal Computer. The Auto Play screen will automatically appear. Click “Run launcher.exe”.

**Windows 7 or Windows Vista**

1. Load the installation CD-ROM in the CD-ROM drive of the Personal Computer. The Auto Play screen will automatically appear. Click “Run launcher.exe”.

**NOTE**
When the "Auto Play" function of the computer is “OFF”, this screen will not be displayed. Please execute launcher.exe in the CD-ROM and start.
2 When the installation screen appears, Click “Install SL-Touch for SL1000” to begin the installation.

3 If the “User Account Control” screen appears, click the “Yes” button or the “Continue” Button.

Windows 8 or Windows 7

Windows Vista

NOTE! This screen may not be displayed, depending on the settings of the computer.
4. When the installation screen of “Microsoft .NET Framework 4.0 Client” and “Microsoft SQL CE3.5 SP2” is displayed, click the “Install” button.

![Image of InstallShield Wizard]

**NOTE** / When the above-mentioned item has already been installed the Personal Computer, this installation screen is not displayed.

5. When the “Welcome to the InstallShield Wizard for SL-Touch for SL1000” screen appears, click the “Next” button.

![Image of InstallShield Wizard]

Welcome to the InstallShield Wizard for SL-Touch for SL1000

The InstallShield Wizard will install SL-Touch for SL1000 on your computer. To continue, click Next.
6 When the License Agreement” screen appears, confirm the following messages and click the “Yes” button.

7 Click the “Install” button.

8 When the “Windows Security” screen appears, click “Install” button.
9 The language selection screen will be displayed, then, select the language and click the “OK” button.

![Language selection screen](image)

**NOTE** ! The selected language can be changed in the “Preferences”.

10 When the “InstallShield Wizard Complete” screen appears, click the “Finish” button and remove the CD-ROM from the Personal Computer.

![InstallShield Wizard Complete](image)

**IMPORTANT** ! Execute the installation of the device driver when the installation of SL-Touch for SL1000 application is completed. If the installation of the device driver is not completed, the application cannot be started. Install the device driver according to the following procedures.

11 Connect the Scanner to the Personal Computer with the USB cable.

12 Turn the Power Switch of the Scanner ON.
When the scanner is detected, and the installation of the device driver is completed, the installation of the Application completes.

**Windows 8**
The installation screen is displayed on the taskbar.

When the progress bar reaches termination, and the installation screen disappears, the installation completes.

**Windows 7 and Windows Vista**
“Installing device driver software” appears.

When “SL1000 Digital Film Scanner Device driver software installed successfully” is displayed, the driver was installed successfully.
1.4 Update the Application Software and the Driver Software

The SL-Touch for SL1000 application is updated in the computer according to the following procedures.

The following procedure shows the application and driver update for Windows 7. Administrative rights are needed for the application and the driver update.

NOTE / When updating the application and driver, the uninstallation of the application and driver of the previous version is unnecessary. Screens may differ slightly depending on the Windows Version.

1. Load the installation CD-ROM in the CD-ROM drive of the Personal Computer. The Auto Play screen will automatically appear. Click “Run launcher.exe”.

2. When the installation screen appears, click “Install SL-Touch for SL1000” to begin the installation.

3. If the “User Account Control” screen appears, click the “Yes” button.

NOTE / Please refer to 1-3 of the “1.3 Installation the Application Software and the Driver” for details.

4. If the following screen appears, click the “Yes” button.

5. When the “Resuming the InstallShield Wizard for SL-Touch for SL1000” screen appears, click the “Next” button.
6 When the “Windows Security” screen appears, click “Install” button.

![Windows Security screen]

7 When the “Update Complete” screen appears, click the “Finish” button, and remove the CD-ROM from the Personal Computer.

![Update Complete screen]

**IMPORTANT !** When the SL-Touch for SL1000 application is updated, the device driver is deleted once. Therefore, please install the device driver again. If the installation is not completed, the application cannot be started. Install the device driver according to the following procedures.

8 Connect the Scanner to the Personal Computer with the USB cable.

9 Turn the Power Switch of the Scanner ON.

10 When the scanner is detected, and the installation of the device driver is completed, the installation of the Application completes.

**NOTE !** Please refer to 13 of the "1.3 Installation the Application Software and the Driver" for details.
1.5 Uninstalling the Application Software and the Driver Software

When “SL-Touch for SL1000” installed on the Personal Computer is no longer necessary, use the following procedure to remove it.

The following procedure shows the application and driver uninstall for Windows 8. Administrative rights are needed for the application and the driver uninstall.

**NOTE** Screens may differ slightly depending on the Windows Version.

1. Confirm the Power Switch of the Scanner is turned OFF.
2. From “Start” menu, choose “Control panel”. Click “uninstall a program”.
3. Select “SL-Touch for SL1000” and then click the “Uninstall” button.

![Uninstall window](image)

4. When the following window appears, Click “Yes”.

![Confirmation window](image)
5 When the “Uninstall Complete” screen appears, click the “Finish” button.

6 Restart the Personal Computer.
2 Application Start-Up and Shutdown

2.1 Application Start-Up

There are "SCAN Mode" and "VIEW Mode", and the mode changes into "SL-Touch for SL1000" by connecting the Scanner when start up.

**NOTE**
Connect the Scanner before you start an application, complete the Application and the Driver Installation. If you start an application before connecting the Scanner will display an error message.
Execute it while quit the application whenever the resolution on the display or the direction of portrait and landscape is changed. When the display setting is changed while the application Start-Up, the screen is not normally displayed.

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**SCAN Mode**

1. Turn on the Power Switch of the Personal Computer, and start Windows.
2. Connect the Scanner to the Personal Computer with a USB Cable, and turn ON the Power Switch of the Scanner.
3. Select the button "Start" → "All programs" → "SL-Touch" → "SL-Touch".
4. The application starts in the SCAN Mode after the main screen of “SL-Touch for SL1000” is displayed.

**NOTE**
It takes time to start to read the Scanner adjustment value while displaying the opening screen.
When the Scanner is not connected, VIEW Mode starts.

5. The film used or the registered custom profile is selected after "Film Selection" screen is displayed, and click the “OK” button.

**NOTE**
Non-display setting of "Film Selection" is also possible.

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**VIEW Mode**

1. Turn on the Power Switch of the Personal Computer, and start Windows.
2. Select the button "Start" → "All programs" → "SL-Touch" → "SL-Touch".
3. The application starts in the VIEW Mode after the opening screen of “SL-Touch for SL1000” is displayed.
2.2 Application Shutdown

It is possible to shutdown the application using one of the following methods.

- Click the "×" button in the upper right corner of the title bar.

- Hold down the application bar (located under the title bar) until “Shutdown Application” is displayed. Click OK and the application will shutdown.

SCAN Mode : Normal Screen

SCAN Mode : Full Screen

VIEW Mode : Normal Screen

VIEW Mode : Full Screen

Shutdown Screen

- Presses the "Alt" + "F4" keys on the keyboard.
3 SCAN Mode Screen

The image is displayed on the application screen. This mode enables you to read the image and set various functions. Listed below is an explanation of the functions that can be set in SCAN Mode.

1. Scan Window
   - The scanning image is displayed.
   - While the film is moving, animation (Follow to movement) is displayed. Moreover, when the film stops, the still picture (Read by high resolution) is displayed.

   **NOTE**
   - The image arbitrarily displayed by the zoom operation of the Touch Panel can be magnified and be reduced for the multi touch environment.

2. Cropping Area
   - The area to the output file and the output printer is selected, and displayed. The size of the Cropping Area changes if a quadrangle in four corners and all sides is dragged.

   **NOTE**
   - The Cropping Area set within the selection crop size range is output when the fixed form size (Excluding Custom) has been selected by "Output setting".
   - The Cropping Area is not changed at the zoom. Please return to normal display pressing "Fit", and execute it.

3. Toolbar
   - The application and the Scanner are operated and set.

   ➔ 3.1 Toolbar

   **NOTE**
   - There is no menu bar in this application.
   - All are operated with buttons on the toolbar.
   - The button displayed on the tool bar can be changed.
4. **Help Button**  
The Help file is displayed  
The Help file is also displayed when the "F1" key on the keyboard is pressed.

5. **Roll Film Carrier**  
The Motorized Roll Film Carrier (Option) is operated.  
⇒ 5.1 [RollFilmCarrier](#)
3.1 Toolbar

3.1.1 Toolbar to VIEW Mode

It changes from the SCAN Mode to the VIEW Mode.

3.1.2 Film Selection

The Film Selection screen is displayed.

3.2 Film Selection

3.1.3 Auto Focus

It is automatically adjusted to the best focus.

NOTE:

- It may not function correctly due to the condition of the film (density, contrast, and image pattern). In this case, adjust it manually.

3.1.4 Film Polarity

The polarity of the film ("Positive film" or "Negative film") is selected.

3.1.5 Zoom In

The Scanner performs the zoom operation so that the magnification display is adjusted as long as button is depressed.

The Scanner shifts to an electronic zoom when the upper bound of the optical zoom is exceeded and does the magnification operation.

3.1.6 Zoom Out

The Scanner does the zoom operation like wide-ranging being displayed as long as button is depressed.

3.1.7 Rotate CCW

Whenever the button is pushed, the image is rotated 90 degrees counterclockwise.

3.1.8 Rotate CW

Whenever the button is pushed, the image is rotated 90 degrees clockwise.

3.1.9 Horizontal Flip

Whenever the button is pushed, the image reverses right and left.

NOTE:

- It changes into the picture that reverses the icon for the reverse image.
Deskew CCW
The image is counterclockwise and is aligned when the button is depressed. (max. 45 degrees)

Deskew CW
The image is clockwise and is aligned when the button is depressed. (max. 45 degrees)

**NOTE**
- When the inclination is corrected, the arrow of the icon becomes an orange.

  ![Icon](image)
  or

- The correction returns to the origin (0 degrees) when "Deskew CCW" or "Deskew CW" is pushed while depress the "Shift" key on the keyboard.
- Even if "Deskew CCW" and "Deskew CW" of the Touch Panel are pushed at the same time for the multi touch environment, the correction angle can be returned to the origin (0 degrees).

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Scan to File
The image is scanned, and it outputs to the file.

**NOTE**
- The range set in Cropping Area is outputted except "Auto Fit".
  - The scan size, resolution, and output destinations etc. are set by "Output Setting"
  - When the Manual Switch (Option) is installed, "Scan to File" and "Scan to Print" operations can be executed even if the Manual Switch is used to scan the microfilm.
  - In this case, you can toggle between "Scan to File" or "Scan to Print" in the "Preferences" menu.

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Scan to Print
The image is scanned, and it outputs to the printer.

**NOTE**
- The range set in Cropping Area is outputted except "Auto Fit".
  - The printer screen is not displayed when printing by "Scan to Print ".
  - The scan size and output destinations etc. are set by "Output Setting".
  - When the Manual Switch (Option) is installed, "Scan to File" and "Scan to Print" operations can be executed even if the Manual Switch is -is used to scan the microfilm.
  - In this case, you can toggle between "Scan to File" or "Scan to Print" in the "Preferences" menu.
Magnifier +

The displayed image is continuously magnified. The magnification amount is displayed in the scan window (upper right) while zooming.

Magnifier -

The image that has been magnified is reduced.

**NOTE**

- When an image is magnified, the Cropping Area cannot be changed.
- The reduction image doesn't become smaller than the scan window size.
- It is possible to magnify and to reduce even by the zoom operation of the Touch Panel for the multi touch environment.

Fit to Window

The zoom image is returned to normal size.

Image Adjustment

The image quality is adjusted

⇒ 3.3 Image Adjustment

Auto Cropping

The Cropping Area is automatically adjusted to the size of the image frame.

**NOTE**

- The Auto Cropping might not function normally according to the shape and the density of the image. In this case, it adjusts manually.

Cropping Mode

The Cropping Mode ("Normal Mode" or "Custom Mode") is changed.

**Normal Mode**

The selected area (Cropping Area) is read in an area one rectangular.

**Custom Mode**

The rectangular area is added to plurals, and the area is read.

"Custom Mode" is selected, a mouse cursor becomes a "cross" and it can specify two or more ranges.

**NOTE**

- It returns to the Cropping Area at the Normal Mode immediately before when changing from the Custom Mode to the Normal Mode.
- When the "Custom Mode" has been selected, the setting of "Edit" (Masking etc.) becomes invalid.

Auto Zoom

To be suitable for the scan window size, the range of the Cropping Area selection is automatic zoom position corrected.

**NOTE**

- The magnification becomes the upper bound of the optical zoom.
### Multiple SCAN
The continuous scanning screen of the Roll Film is displayed. (The Motorized Roll Film Carrier of the option must be installed.)

   - 5.1 Multiple SCAN

### Multiple SEARCH
The continuous retrieval screen of the Roll Film is displayed. (The Motorized Roll Film Carrier of the option must be installed.)

   - 5.2 Multiple SEARCH

### Auto Exposure
The image in Cropping Area is adjusted to the proper density automatically.

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**NOTE** ! • It may not function correctly due to the condition of the film (density, contrast, and image pattern). In this case, please adjust it with Image Adjustment.

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### Lamp Illuminance
The illuminance of the exposure lamp are set

   - 3.4 Lamp Illuminance

### Auto Corrections
The item selected from "Automatic inclination correction", "Automatic density correction", and "Automatic focus" is corrected automatically grouped together.

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**NOTE** ! • The item selection is executed by “Preference”.

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### Step Focus
Focus is adjusted manually.

### Auto Deskew
The inclination of the image is automatically corrected.

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**NOTE** ! • It may not function correctly due to the condition of the film (density, contrast, and image pattern). In this case, adjust it manually. When the inclination is corrected, the arrow of the icon changes to the color orange.
Pan Window

The window of a whole image (pan window) is displayed at the zoom.
The image in the scan window also follows when the frame of the pan window is dragged and moved.
Oppositely the frame of the pan window also follows when the image in the scan window is dragged and moved.

Output Setting

When the scan is output, the scan size and the resolution, etc. are variously set.
⇒ 3.5 Output Setting

Preferences

The application and the Scanner are variously set (Power Saving, etc.).
It is necessary to input the password for the setting.
⇒ 3.6 Preferences
3.2 Film Selection

The type of the film is selected and the setting (display color and zoom magnification, etc.) that is appropriate for the film is achieved.

1. Custom Profile
   Allows you to select a registered custom profile.

   **NOTE** / • When the "Allow to select the Custom Profile" has been set to OFF on Preferences, the switch of Custom Profile becomes invalid.

2. Film Type
   The zoom magnification and the exposure lamp illuminance that is appropriate for the film format are set.

   The proper zoom magnification is set to the aperture card.

   The proper zoom magnification is set to the 35 mm Roll Film.

   **NOTE** / • When the Motorized Roll Film Carrier is installed, the screen of the Roll Film Carrier is displayed.
Chapter 3 SL-Touch for SL1000

The proper zoom magnification is set to the 16 mm Roll Film.

NOTE! • When the Motorized Roll Film Carrier is installed, the screen of the Roll Film Carrier is displayed.

The proper zoom magnification is set to the Micro Fiche Film 60F or 98F.

The proper zoom magnification is set to the Micro Fiche Film 270F or 420F.

The proper zoom magnification is set to the Micro Opaque Card. Moreover, the exposure lamp illuminance also set a proper value to the Micro Opaque Card.

NOTE! • When the Micro Opaque Card is selected, the film polarity cannot be set.

The arbitrary zoom magnification is set.

3. Show Roll Film Carrier

When "Custom" is selected in Film Type, the “Roll Film Carrier” screen is displayed.

NOTE! • It is only effective, when the "Motorized Roll Film Carrier" is installed.

4. Zoom

When “Custom” is selected in Film Type, the zoom magnification is set.

NOTE! • The zoom magnification range can be set from "6.8x" to "105.0x".
• The zoom magnification range can only be designated when the Film Type is set to Custom. Specifying a Zoom Magnification Range is not available for any other Film Selection type.
• When a “Custom Profile” is registered, the zoom magnification of each film type can be changed. The zoom magnification can be registered via the Custom Settings in the Preference Menu.

5. Film Polarity

The polarity of the film used is selected.

Negative Film: When the negative film is used, the reversing display (Conversion: the black from the transparency, white from the black) and the scanning are selected.

Positive Film: When the positive film is used, the neutral display (Neutral: the white from the transparency, black from the black) and the scanning are selected.
6. Film Color

The color of the film used is selected.

Monochrome Film: The film is selected when the monochrome display and scanning.

Color Film: The film is selected when the color display and scanning.

7. Horizontal Flip

Images are flipped to the right and left.

**NOTE!**  • When the Roll Film is selected, the initial value of "Horizontal Flip" is "ON"

8. Rotate

The image rotation is selected.

You can select four rotation values (None, CW90°, CCW180° and CCW90°).

9. OK

It moves to the zoom position and the color display to set of the selection.

**NOTE!**  • The following settings change into an initial value or the registration value of each custom profile if the film selection is executed.

- Film Type
- Film Color (Monochrome and Color Film)
- Film Polarity (Positive and Negative Film)
- Zoom Position
- Horizontal Flip (ON and OFF)
- Rotate (None, CW 90°, CCW180° and CCW 90°)
- Image Adjustment
- Cropping Mode

10. Cancel

It cancels the moving of the setting of the color display or the zoom position.

**NOTE!**  • When the application starts, the color display and the zoom position are moved to set of the memory at the end.
3.3 Image Adjustment

The display and the image quality when scanning are adjusted. The adjusted value is in real time reflected in the displayed image. “Standard Mode” and "Advance Mode" can respectively be set by switching the tab.

Standard Mode

A common item to the reading color is set.

1. Histogram

Distribution and the Mean Value of the Histogram of the adjustment area that has been selected are displayed.

2. Density

3. Brightness

4. Contrast

5. Sharpness
2. Adjustment Area

The adjustable range of "Brightness" and "Contrast" is selected.

Entire: Display of the histogram in read whole area and "Brightness" and "Contrast" are adjusted.

Selected: Display of the histogram in read selected area and "Brightness" and "Contrast" are adjusted.

Procedure of the operation:
1) The Cropping Area disappears when “Selected" is selected, and the selection range frame is displayed in the dotted line of "Orange" and "White".
2) The selection range frame is set to the adjusted position.
3) When “Brightness" or “Contrast” is changed, it is affected in the image of the selection range frame. Please set it to a proper value.
4) The changed setting is settled when “OK" is pressed, the selection range frame disappears, and the Cropping Area is displayed.
5) When other range is adjusted, the “Image adjustment” is pressed again, and 1) to 4) is executed.

**NOTE !**
- A specified frequency of “Selected" is eight places or less.
- The adjusted image returns to the initial when "Image rotation" and "Skew correction" are executed, and the scan image of the film is changed.
- The selection range frame is not changed at the zoom. Please return to normal display pressing "Fit to Window", and execute it.

3. Brightness

The brightness of the image is adjusted.

- **Lighter**  The image is lightened.
- **Darker**  The image is darkened.
4. Contrast

The contrast of the image is adjusted.

- **High**
  The contrast of the image is increased.

- **Low**
  The contrast of the image is decreased.

**NOTE**
- The proper image density can be obtained by adjusting "Brightness" and "Contrast" to distribute the histogram in the whole area.

5. Sharpness

The sharpness of the image is adjusted.

- **Sharp**
  The image is made sharper.

- **Soft**
  The image is made softer.

**NOTE**
- Even if "Brightness" and "Contrast" are adjusted according to the film, an appropriate image density might not be obtained. In that case, it might be improved by changing illuminance intensity of the LED lamp. (Please refer to the section "3.4 Lamp Illuminance".)
Advance Mode
When the reading color is "Color" or "Monochrome binary", the following items can be set.

**Image Type: Color**
- **Hue**: The hue of the color image is adjusted.
- **Saturation**: The saturation of the color image is adjusted.
- **Lightness**: The lightness of the color image is adjusted.

**NOTE!**  
- "Hue", "Saturation", and "Lightness" can be adjusted only for the "Color" "Image type" of "Output setting".

**Image Type: B/W (Manual)**
- **B/W Threshold**: When a black and white binary image is made, the threshold is adjusted.

**NOTE!**  
- When "Output setting" of the "Image type" is only "B/W (Manual)", the binary threshold can be adjusted.
3.4 Lamp Illuminance
The illuminance of the exposure lamp are set.

1. Lamp Illuminance
Quantities of light of the exposure lamp are set.

- The exposure lamp is lightened.
- The image lightens for the positive film.
- The image darkens for the negative film.
- The exposure lamp is darkened.
- The image darkens for the positive film.
- The image lightens for the negative film.

NOTE!
- The usually according to the film and the magnification, brightness is adjusted automatically to standard position.
3.5 Output Setting
The scan setting, the output setting and printer setting when "Scan to File" and "Scan to Print" are executed are set.

1. Batch – Title
   Register, set scan settings and delete batch settings of associated settings.
   When the selected item is registered, the registered name is input to "Batch Title" column.
   When the registered batch is accessed, it selects from the pull-down list.
   * The Default setting cannot be deleted.

   NOTE!
   - The character (\ and / etc.) cannot be used for the title as a file name of Windows.
   - Because the batch of each logon user of Windows is preserved, the batch of another logon user cannot be read.

2. Batch – NOTE
   The comment is added to the registered batch.

3. Delete
   The registered batch is deleted.
   When "Delete" is clicked after "Batch Title" is selected, the selected batch is deleted.

   NOTE!
   - The setting of "Default" cannot be deleted.
   - Even if the batch is deleted, the image file in batch is not deleted.
4. **Save**

The input batch is preserved. When "Save" is clicked after "Batch title" is input, the batch is preserved.

The following setting is preserved in the batch:
- Orientation, Size, Resolution, Image Type, Edit, Save in, File name, File number, Format, Compression, Printer Name, Fit to printable area of paper size, Rotate to orientation of paper

**NOTE !**
- It can not be preserved by changing the setting of "Default".
- Batch of each logon user of Windows is preserved.

5. **Rename**

The Batch Name can be changed.

6. **Orientation**

When the fixed form size is output, the output direction is set.

- **Portrait**: Scan image is output by a portrait fixed form size.
- **Landscape**: Scan image is output by a landscape fixed form size

7. **Size**

The output image size is set.
It can be selected according to 12 selections (A2, A3, A4, B3, B4, B5, 17” x 22”, Ledger, Legal, Letter, Check and Custom).

**NOTE !**
- For "Image Type" you can only select "Grayscale" or "B/W" for A2, B3, and 17"X22" documents.
- When the fixed form size (excluding Custom) is selected, the range of the Cropping Area is output to the selected output size or less.
- When Custom is selected, it is output in the condition within the range of the Cropping Area that has been selected.

8. **Resolution**

The output resolution when saving a file is set.
It can be selected according to 9 selections ( 600, 400, 360, 300, 240, 200, 150, 100, 75dpi.)

**NOTE !**
- As for "600 dpi", if the "Image type" is "Gray scale" or "Monochrome binary", and "Size" is less than "A4" or "Letter", only it can be selected.
- The resolution when the printer output is fixed by "360dpi".
9. Image Type

The mode of the output image (Color and Binary) is set.

When Film "Color Film" is selected:
Only the Color (24bit) can be selected.

When film "Monochrome Film" is selected:
It can be selected according to 4 selections (Gray Scale (8bit),
B/W (Manual), B/W (Auto), B/W (Error Diffusion)).

10. Edit

"Masking", "Centering" and “Auto Fit” are set.

1. Masking: When a size that is larger than the image that has been selected, the outside of the image is deleted by "White".

2. Centering: The center gap of the image is detected, and the image is arranged at the center of the output area.

3. Auto Fit: The image is enlarged to fit the paper size and output. When "Custom" paper size is selected, only the image is output.

NOTE!
- The “Edit” might not function correctly according to shape and the density of the image.
- When the "Custom Mode" has been selected by "Cropping Mode", the setting of "Edit" becomes invalid.
11. Save In

It selects the repository for each batch scanned file. The scanned file is saved to each batch folder. When the “Save In” repository is not designated, a folder for each custom profile registered in the SL-Touch folder is created, and the folder of each batch is created under that name. " " Refer to the figure below

As for the Default batch folder, preservation place cannot change.

<table>
<thead>
<tr>
<th>Batch Folder</th>
<th>Custom profile registered folder</th>
<th>Each Batch folder</th>
<th>Change Repository</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL-Touch</td>
<td>Default</td>
<td>Default</td>
<td>Impossible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Batch 1</td>
<td>Possible</td>
</tr>
<tr>
<td></td>
<td>Profile A</td>
<td>Default</td>
<td>Impossible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Batch 1</td>
<td>Possible</td>
</tr>
<tr>
<td></td>
<td>Profile B</td>
<td>Default</td>
<td>Impossible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Batch 1</td>
<td>Possible</td>
</tr>
</tbody>
</table>

**NOTE!**
- When the “Batch Folder” is default, it becomes “SL-Touch” Folder under “My Pictures” folder of the logon user of Windows.
- And, Batch Folder is able to change in Preferences. → 3.6 Preferences
- When repository location has not been selected, “Save In” is displayed by the blank.
- When you set the preservation place, save the batch after that.
  - If the batch is not saved, the preservation place will not be changed.
- When the file is stored in a folder before the folder is changed, all files except the subordinate position folder are copied onto the new selection folder.
- When the image file exists in the folder that preserves the rewrite, the file is not registered as an image in the batch. Only the file newly scanned is registered in the batch.
12. File Name
The character of a fixed part of the file name is set.
The file name is preserved by the name of "fixed character" and "file number (four digits)".

**NOTE !**
- When the file name is not set, file number (four digits) becomes a file name.

13. File Number
Sequential number for the file name and "Increment" and "Decrement" are selected.

14. Format
The file format is selected.
It can be selected according to 6 selections (BMP (*.bmp), TIFF (*.tif), JPEG (*.jpg), PDF (*.pdf) and PNG (*.png)).

**NOTE !**
- JPEG (*.jpg) cannot be selected in case of monochrome binary.
- The multi page file (TIFF and PDF) cannot be preserved directly.
  When the multi page file is made, "VIEW Mode" and "Convert multi-page" are used for conversion.
- A Searchable PDF file cannot be saved directly.
  Please save as a Searchable PDF file after selecting and converting "OCR" or "Convert multi-page" in "VIEW Mode".

15. Compression
When the file is preserved, the compressed format is selected.

**NOTE !**
- The compressed format is different depending on the file.
- There are three compression types available for JPEG files — Fine, Standard and Economy.

16. Printer Name
The output printer is selected.

17. Fit to printable area of paper size
When the image is output, the image is magnified or reduced based on the size of the paper.

18. Rotate to orientation of paper
The image rotates and is printed according to the orientation of the paper.
3.6 Preferences
The Application and the Scanner Settings are saved.
It is necessary to input the password to display the screen in the environmental setting.

**NOTE**
- The password of default is "0000".
- To initialize the password when the password was forgotten, contact the Servicing Dealer.

1. **Show Scan Image**
   After it scans, the scanning image is displayed based on the selected time interval.

2. **Image Display Time**
   When "Show Scan Image" is enabled (Check Show Scan Image Box), set the image display time.
3. Ask Before Output

It displays on the confirmation screen before the scan image is output when "The scan image is displayed" is “ON”.

For Scan to File

4. Color Correction

The correction of the color reproduction for the color image is set. There are three selections available (Non, Standard and Color Management).

5. ICC Profile

The ICC Profile is selected.

6. Auto Contrast

When the monochrome film is set, the image contrast is automatically corrected.

7. Digital GEM

The graininess of the film is decreased. It is effective for the image quality reproduction of negative film.

8. Display Language

The display language of the application is selected. The language can be arbitrarily selected from the following nine settings.

- Auto Select, Chinese, Dutch, English, French, German, Japanese, Russian and Spanish

When the “Auto Select” is selected, the language of the application is changed automatically according to the display language of OS.

**NOTE**

- When the “Display Language” is changed, also the language of Help screen changes automatically.
- However as for the language of the User's Guide changing the “Display Language”, it does not change.

9. Custom Setting

The film and toolbar are set by each custom profile in Custom Setting.

10. Use the default destination

The folder of the default destination which is specified by application is used as parent folder for the batch data preservation.

**NOTE**

- The default folder becomes "SL-Touch" Folder under “My Pictures folder of the logon user of Windows”.

11. Batch Folder

When the setting of “Use the default destination” is OFF, the parent folder of the batch data is specified.

**NOTE**

- When the Batch Folder has been changed, the data in the previous folder is moved to the new folder.
12. E-Mail Setting
Settings related to E-mail transmissions are available.
→ 3.9 E-Mail Setting

13. Manual Switch
When the Manual Switch (option) is used, the operation is set.
The setting can be selected from “Scan to File” or “Scan to Print”.

14. Put the Scanner to Sleep
The time that should elapse when no operation is performed before the device enters Sleep Mode.
It can be selected according to 7 selections (5 Minutes, 15 Minutes, 30 Minutes, 60 Minutes, 2 Hours, 3 Hours and 4 Hours).

15. Turn OFF the Scanner
The time that should elapse when no operation is performed in Sleep Mode before the Power Supply is turned OFF.
It can be selected according to 4 selections (60 Minutes, 2 Hours, 3 Hours and 4 Hours).

16. Full Screen
Change to the “Full Screen Mode” that doesn't display Windows Taskbar.

NOTE ! • In case of “Full Screen Mode”, the application is able to quit by “Shutdown Screen” or “Alt + F4 of the keyboard”.
→ 2.2 Application Shutdown

17. Use Large Icon
The size of the icon button in the Toolbar is enlarged by one step.

18. Show Property
Various properties are displayed at the right of the scan window by the sidebar.

19. Launch Film Selection at Startup
When the application is started, the "Film Selection" screen is displayed.

20. Allow to select the Custom Profile
The switch of the “Custom Profile” becomes effective for the screen of “Film Selection” and “Open (VIEW Mode)”.

21. Use operation sound
When the application starts, and the operation is executed, the sound is reproduced.

NOTE ! • When Windows Media Player is not installed, the operation sound is not reproduced.
22. **The setting is preserved and complete.**

The last settings are preserved when quitting the application and it ends.

**NOTE /**
- The setting of each logon user of Windows is preserved.

<table>
<thead>
<tr>
<th>23. <strong>Change Password</strong></th>
<th>When the screen of &quot;Preference&quot; is accessed, the password is changed. → 3.8 <a href="#">Password Change</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>24. <strong>Maintenance Mode</strong></td>
<td>The device is adjusted in this area. Only Service Technicians can use this mode.</td>
</tr>
<tr>
<td>25. <strong>OK</strong></td>
<td>The setting is saved, and exits out of the screen.</td>
</tr>
<tr>
<td>26. <strong>Cancel</strong></td>
<td>The setting is canceled, and exits out of the screen.</td>
</tr>
</tbody>
</table>
3.7 Custom Setting

"Film Setting" and “Toolbar Setting” for each custom profile can be saved as a custom registration.

Film Setting

1. Custom profile Displays the custom profile name on the Film Selection screen. This is where the custom profile name is registered and can be deleted.

When the custom profile is registered, the name of the custom profile is input to "Custom Profile" column.
When the custom profile which registered is presented, it selects from the pull-down list.
*The Default custom profile cannot delete.

NOTE!
- The character (\ and / etc.) cannot be used for the custom profile name as a file name of Windows
- Because the batch of each logon user of Windows is preserved, the batch of another logon user cannot be read.
2. Delete
Deletes registered custom profile.
When deleted "Custom Profile" is selected, and "Delete" is clicked, the custom profile is deleted.

**NOTE /**
- The custom profile of "Default" cannot delete.

3. Save
The custom profile which input is preserved.
When "Save" is clicked after "Custom Profile" is input, the custom profile is preserved.
The following setting can be saved in a custom profile.
1) Film Type, 2) Film Polarity, 3) Zoom, 4) Horizontal Flip, 5) Image Rotation and 6) Toolbar Setting etc.

**NOTE /**
- If the Custom Profile is set to Default, Film polarity, Zoom Range, Horizontal Flip, Image Rotation and Toolbar Setting can not be changed and saved in a Custom Profile unless the Film Type is set to "Custom".
- The user of each logon user of Windows is preserved.

4. Film Type
The Film Type is selected.

**NOTE /**
- When the Custom Profile is newly registered, the current setting value in the application software is to be the default value in the "Custom".

5. Show Roll Film Carrier
When "Custom" is selected in Film Type, the "Roll Film Carrier" screen is displayed.

6. Zoom
The zoom magnification is set.

7. Film Polarity
The polarity of the film used is selected.

8. Film Color
The color of the film used is selected.

9. Horizontal Flip
The image is flipped to right and left.

10. Rotate
The image rotation is selected.

**NOTE /**
- Please refer to "3.2 Film Selection" for details concerning items (10 from 4).

11. OK
Customer is registered by the selected setting condition.

**NOTE /**
- When "Preferences" is closed after Custom Setting is executed, Film Selection is executed under the registered Custom Setting condition.

12. Cancel
It ends without registering custom profile.
Toolbar Setting

1. **Non-display button**  
The buttons not displayed on the toolbar is displayed in the list.

2. **Toolbar**  
The button displayed on the toolbar is displayed in the list.  
The list is displayed, queuing up in order from the left of the toolbar to the lower right.

3. **Add**  
The button displayed on the toolbar is added.  
"Non-display button" is selected, and "Addition" is clicked, and the oriented button is added onto the "Toolbar" list.

4. **Remove**  
The button displayed on the toolbar is deleted.  
The oriented button on the "Toolbar" is selected, and the button is deleted when "Remove" is clicked.

5. **Move Up**  
The position of the selection button on the toolbar is moved (on the left).  
When the button is selected on the "Toolbar", and "Move Up" is clicked, it shifts up one.

6. **Move Down**  
The position of the selection button in the toolbar is moved on (lower right).  
When the button is selected on the "Toolbar", and "Move Down" is clicked, it shifts down by one.
7. **Reset**
   - The button displayed in the toolbar is reset in the initial values.

8. **Show Text of Icons**
   - The toolbar functions are displayed under the toolbar.

9. **Show Output Setting Button**
   - "Output setting" button of the toolbar is displayed.

10. **Show E-Mail Button**
    - "E-Mail" button is displayed on Toolbar in VIEW Mode.

11. **Auto Correction**
    - The adjusting item executed when the "Auto Corrections" button is clicked, is set.
    - It can be selected according to the following.
      1. Exposure & Deskew & Focus
      2. Exposure & Deskew
      3. Deskew & Focus
      4. Exposure & Focus
3.8 Password Change
The password to display "Preferences" screen can be changed.

1. Old password
   The password set now is input.
   
   **NOTE**
   • The default password is “0000”.

2. New password
   The new password is input.
   The password can set only 4 digit numeral.
3.9 E-Mail Setting

E-Mail TX (SMTP)
The transmission of the E-Mail is set.

1. SMTP server
   Sets the SMTP server address.
2. Port Number
   Sets the port number for E-mail transmission.
3. SSL
   Sets the SSL (enable/disable) for E-mail transmission.
4. Mail Address
   Sets the sender's mail address.
5. SMTP Authentication
   Sets the SMTP verification (enable/disable).

**NOTE** ★ SMTP Authentication is not available when POP Before SMTP is enabled.

6. User ID
   Sets the SMTP User ID.
7. Password
   Sets the SMTP Password.
### E-Mail RX (POP)
When "POP Before SMTP" is “ON”, E-mail reception is enabled.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>8. POP Before SMTP</strong></td>
<td>Sets POP Before SMTP (enable/disable).</td>
</tr>
<tr>
<td><strong>NOTE</strong></td>
<td>• POP Before SMTP is not available when SMTP Authentication is enabled.</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9. POP Server</strong></td>
<td>Sets the POP Server Address for E-mail reception.</td>
</tr>
<tr>
<td><strong>10. Port Number</strong></td>
<td>Sets the Port Number for E-mail reception.</td>
</tr>
<tr>
<td><strong>11. SSL</strong></td>
<td>Sets the SSL (enable/disable) for E-mail reception.</td>
</tr>
<tr>
<td><strong>12. Login Name</strong></td>
<td>Sets the POP server Login Name.</td>
</tr>
<tr>
<td><strong>13. Password</strong></td>
<td>Sets the POP server Password.</td>
</tr>
</tbody>
</table>

### Other Setting
Other settings to which E-Mail relates are performed.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>14. Server Capacity</strong></td>
<td>Sets the maximum E-mail file size. A warning message is displayed when the size of the image data exceeds the maximum value and the E-mail transmission is canceled.</td>
</tr>
<tr>
<td><strong>15. Server Timeouts</strong></td>
<td>Sets the time interval for cancelling E-mail reception if the operation is delayed in either of the following cases. • Mail is being transmitted to the SMTP Server. • Mail is being received from the POP Server.</td>
</tr>
<tr>
<td><strong>16. Use Address Book</strong></td>
<td>Sets the Address Book (enable/disable) for E-mail transmission.</td>
</tr>
</tbody>
</table>
4 VIEW Mode Screen

The image file preserved in the SCAN Mode is displayed and it can be edited.

NOTE ! • It is possible to display only with the batch file preserved with the connected Scanner.

1. Thumbnail

The image preserved in the batch that is currently open is displayed in the Thumbnail.
The file is selected by the Thumbnail, and the image is displayed in the scan image window by using the drag & drop to the window or by performing a double-click.

NOTE ! • It can also be scrolled on the Touch Panel by the flick operation of the Touch Panel.

When the thumbnail bar is clicked, the sorting screen is displayed as follows.

File Sorting can be set to respectively by "Increment" or "Decrement" according to "File Name", "Date", and "Type".
2. View Window

The image selected from the Thumbnail is displayed. When the VIEW Mode is started, the final scanned image is displayed in the SCAN Mode.

**NOTE**
- When the touch panel is used, the image can be switched back and forth by the flick operation on the touch panel.
- The image can be magnified and be reduced by the zoom operation of the Touch Panel for the multi touch environment.
- If the image is edited with other applications, it may be unable to read normally.

3. Toolbar

The application is operated.

⇒ 4.1 Toolbar

**NOTE**
- There is no menu bar in this application. All are operated with buttons on the toolbar.
- The button displayed in the toolbar is not changed in the VIEW Mode.

4. Help Button

The Help File is displayed. The Help file is also displayed when the "F1" key on the keyboard is pressed.
4.1 Toolbar

**to SCAN Mode**

- It changes to the SCAN Mode.

**NOTE**

- When the Scanner is not connected, it does not change to the SCAN Mode.

**Open**

- Registered Custom Profile is selected, and Batch is opened.

**NOTE**

- When "Allow to select the Custom Profile" on Preferences has been set to OFF, custom profile is not able to switch.

**Save**

- The edited image is overwritten and preserved.

**NOTE**

- It cannot save by another name or file format.

**Print**

- The displayed image is printed.

**NOTE**

- Output setting of the printer is executed with setting of the batch which presently is opened.

**Undo**

- The operation is canceled and it returns to the previous condition.

**Image Adjustment**

- The image quality is adjusted.

  → 4.2 Image Adjustment

**Rotate CCW**

- Whenever the button is clicked, the image is rotated 90 degrees counterclockwise.

**Rotate CW**

- Whenever the button is clicked, the image is rotated 90 degrees clockwise.

**Deskew CCW**

- When it keeps pressing the button, the image is adjusted counterclockwise (45 degrees or less).

**Deskew CW**

- When it keeps pressing the button, the image is adjusted clockwise (45 degrees or less).

**Magnifier +**

- The displayed image is magnified and displayed.

  The magnification ratio is displayed on the right of the window between zooms.

**Magnifier –**

- The image that the magnification display is done is reduced.

**Fit to Window**

- The image that the magnification display is done is returned to the normal size.
<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convert multi-page</td>
<td>The multi page is output.</td>
<td>4.3</td>
</tr>
<tr>
<td>OCR</td>
<td>After the OCR operation is executed with PDF File, it converts it into Searchable PDF.</td>
<td>4.4</td>
</tr>
<tr>
<td>E-Mail</td>
<td>The scanned file is transmitted via E-mail.</td>
<td>4.5</td>
</tr>
<tr>
<td>Delete File</td>
<td>The scanned file is deleted.</td>
<td>4.6</td>
</tr>
</tbody>
</table>
4.2 Image Adjustment
The image quality of the image being displayed now can be adjusted.

1. Histogram
   Distribution and the Mean Value of the Histogram of the Adjustment Area that has been selected are displayed.

2. Adjustment Area
   The adjustable range of "Brightness" and "Contrast" is selected.
   - Entire: Display of the histogram in read whole area and "Brightness" and "Contrast" are adjusted.
   - Selected: Display of the histogram in read selected area and "Brightness" and "Contrast" are adjusted.

   Procedure of the operation:
   1) When "Selected" is selected the selection range frame is displayed in the dotted line of "Orange" and "White".
   2) The selection range frame is set to the adjusted position.
   3) When "Brightness" or "Contrast" is changed, it is affected in the image of the selection range frame. Please set it to a proper value.
   4) The changed setting is settled when “OK” is pressed, the selection range frame disappears.
   5) When other range is adjusted, the “Image adjustment” is pressed again, and 1) to 4) is executed.

   **NOTE!** • A specified frequency of "Selected" is eight places or less.

**NOTE!** • Whole areas except "Brightness" and "Contrast" are adjusted.
3. **Brightness**
   The brightness of the image is adjusted.

4. **Contrast**
   The contrast of the image is adjusted.

**NOTE**
- The proper image density can be obtained by adjusting "Brightness" and "Contrast" to distribute the Histogram in the whole area.
4.3 Convert multi-page
The selected image is converted from the image preserved in the batch into the multi page file.

**NOTE**
- OCR conversion is only supported in English for "Searchable PDF" functions. Other languages are not supported.
- It may take several minutes per file when OCR is executed. When a high resolution is selected the processing time is shortened and the accuracy level increases. Therefore, it is recommended that the file is saved using a high resolution for all OCR functions.

1. **File Name**
   The file name of the multi-page output is input.

2. **Format**
   The file type of the multi page output is selected. 3 selections are available (PDF (*.pdf), Searchable PDF (*.pdf) and TIFF (*.tif)).

3. **Compression**
   The image compression method for a multi page file is selected. There are four types of compression methods available (JPEG (Fine), JPEG (Standard), JPEG (Economy), and Maintain the original compression method).

4. **Export File**
   The batch file of the multi page output is displayed by the thumbnail.

5. **Selection File**
   The selected file of the multi page output is displayed. Top list is the first page.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>Add All</td>
<td>All the object files of multi page output are added.</td>
</tr>
</tbody>
</table>
| 7. | Add | The selected file of the multi page output is added.  
It is added to the selection file that the file is selected, and "Add" is clicked. |
| 8. | Delete | The selected file of the multi page output is deleted.  
When the file is selected, "Delete" is clicked, it is deleted from the selection file. |
| 9. | Move Up | The position of the selected file is moved to the upward (forward).  
When the file is selected with the selection file, and "Move Up" is clicked, it moves above one. |
| 10. | Move Down | The position of the selected file is moved to the downward (backward).  
When the file is selected with the selection file, and "Move Down" is clicked, it moves one the below. |
| 11. | Delete original file after export | After the multi page is exported, the selected original file is deleted. |
| 12. | Export | The export to the multi page file begins.  
This key changes into "Cancel", and the file export can be canceled while exporting the multi page file. |

**NOTE**
- The message is displayed when the export is canceled and the file is deleted.
- Exporting may take several minutes per file.  
The Export time required is based on the amount of text and the quality of the text within the scanned file when the "Searchable PDF" file format is selected and OCR is executed.

4.4 OCR
The file is selected from PDF file where the batch was preserved, OCR is executed, and it converts it into PDF file for the OCR retrieval.

NOTE!
- OCR conversion is only supported in English for "Searchable PDF" functions. Other languages are not supported.
- The OCR conversion cannot be applied to file types other than PDF. You can create Searchable PDF files from non-PDF files using the "Convert Multi-Page" function. The processing time shortens when the image is set to a high resolution and the identification accuracy increases. When the OCR is executed, it is recommended to preserve it by a high resolution.

1. Export File
   The file (PDF file in the batch) for the OCR conversion is displayed as a thumbnail.

2. Selection File
   The file selected for OCR conversion is displayed.

3. Add All
   All the files selected for OCR conversion are added.

4. Add
   The file selected for OCR conversion is added. It is added to the selection file that the file is selected, and "Add" is clicked.

5. Delete
   The file selected for OCR conversion is deleted. When the file is selected, and "Delete" is clicked, it is deleted from the selection file.
10. Export
The OCR conversion begins. The "Cancel" button appears while executing the OCR conversion. When the Cancel button is clicked, the execution of the OCR conversion is canceled.

**NOTE**
- When the OCR conversion is executed, it overwrites to the original file.
- When the output is canceled, it may take some time to complete the cancellation. The file enters the stage of the OCR conversion that was completed before the process was canceled.

11. Close
The OCR screen is closed.
4.5 E-Mail

The selected file is transmitted as an E-mail among files preserved by the batch.

E-Mail

1. To: Inputs the E-mail Address.

   **NOTE** • Image cannot be sent to multiple recipients.

2. Address Book Opens the Address Book window.

   **NOTE** • The Address Book button is only displayed when it is enabled in E-Mail Settings.

3. Subject: Inputs the Subject.

   Default settings are as follows.

   SL-Touch, year (4 digits A.D.), the month (2 digits), day (2 digits), hour (2 digits for 24 hours), and minute (2 digits) and seconds (2 digits)

4. Export File The file (file in the batch) for the E-Mail execution is displayed as a thumbnail.

5. Selection File The file selected for the E-mail transmission is displayed.

6. Add The file to be transmitted via E-mail is added.

   It is added to the selection file that the file is selected, and "Add" is clicked.

7. Delete The file selected for the E-mail transmission is deleted.

   When the file is selected, and "Delete" is clicked, it is deleted from the selection file.
8. **Message:** Input the Message.
9. **Total File Size** The accumulated size of all files selected for transmission via E-mail is displayed.
10. **Send** Sends the E-mail.

**NOTE**
- When a problem is encountered with an E-mail transmission, an error message is displayed.

11. **Close** The E-Mail screen is closed.

**Address Book**
The address is selected from E-mail addresses that have been registered in the Address Book.

1. **Name, Address** The names and the addresses registered in the Address Book are displayed.
2. **Add** Adds a new E-mail address.
3. **Edit** Edit E-mail addresses that have been registered.
4. **Delete** Delete E-mail addresses that have been registered.
5. **Select** Select an E-mail address that has been registered.
6. **Cancel** Cancels the setting and closes the window.
Edit
E-mail address is registered and edited.

1. Name  Inputs the address name.
2. E-Mail Address  Inputs the E-mail address.
3. OK  Registers the edited name and address.
4. Cancel  Cancels the selection and close the window.
4.6 Delete File
Operation that enables you to delete files.

1. **Object File**
   The file (file in the batch) selected for the deletion is displayed by the thumbnail.

   When you click on the thumbnail and the file background changes to orange, it indicates the file has been selected for deletion.
   The selection is canceled by clicking on the thumbnail again (click or touch).

2. **Delete**
   The selected file is deleted.

3. **Cancel**
   The deletion is canceled and the screen is closed.
5 Roll Film Carrier

When the option "Motorized Roll Film Carrier" is utilized, it can be operated from "Roll Film Carrier" screen of the application.

5.1 Roll Film Carrier

<table>
<thead>
<tr>
<th>Display Monitor</th>
<th>Display Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portrait Screen</td>
<td>Landscape Screen</td>
</tr>
</tbody>
</table>

- **Rewind**
  - The film is rewound.

**NOTE**:
- Only when the Fiche Glass is opened, it can be operated.
- When the Fiche Glass is shut, this key becomes gray, and it cannot be operated.
- After a few seconds, it stops automatically when the film rewind is completed.
The frame of the film (image) is detected, and it reverses to previous one.

The frame of the film (image) is detected, and it advances to next one.

**NOTE**
- Only when the Fiche Glass is closed, the frame movement can be operated.
- When starting the Page Movement, in order for space (black band) of Frame Advanced Pitch to be arranged in Search direction, adjusting the position of the film.
  → 5.4 Alignment when starting the Film Search
- The frame might not be normally detected according to the film condition (image shape and image density).

The film feeding is continued in the forward direction while pressing "FWD", and stops when "FWD" is released.

The film rewinding is continued in the reverse direction while pressing "REV", and stops when "REV" is released.

The function continues when "FWD" or "REV" is double-clicked, and moves at the same speed.

Operation is locked when "FWD" or "REV" is double-clicked and moves at the same speed.

**NOTE**
- When "FWD" "REV" is locked, the outer display changes to orange.
- After a few seconds, it stops automatically when winding the film is completed.

Operation stops when "STOP" is clicked at the lock condition.
5.2 Multiple SCAN

The frame (image) on the Roll Film is automatically detected, and the scan image is preserved in the file.

1. Film Operating Direction

When continuously scanning, the film operating direction is set.

2. Edit

When continuous scan is executed, “Masking”, “Centering”, and “Auto Fit” are set.

   1. Masking
      When a size larger than the image has been selected, the outside of the image is deleted by displaying a "White" border.

   2. Centering
      The center of the image is detected and the image is positioned at the center of the output area.

   3. Auto Fit
      The image is enlarged to fit the paper size and output. When "Custom" paper size is selected, only the image is output.

**NOTE**
- It is linked with “Edit” on Output Setting.
- The “Edit” might not function correctly according to shape and the density of the image.

3. Set Frame Counter

The number of frames (images) continuously scanned is set.
It can be set up to 9,999 frames.

4. Counter

The number of frames continuously scanned is displayed.
5. **Film Position**

The position of the film stop is adjusted.

**NOTE !**
- The stop position of "Multiple SEARCH", "Previous", and "Next" changes when the film position setting is altered.
- The film position can be adjusted while continuously scanning.

6. **SCAN**

The continuous scanning begins.

**NOTE !**
- When starting the Multiple SCAN, in order for space (black band) of Frame Advanced Pitch to be arranged in Search direction, adjusting the position of the film.

→ 5.4 Alignment when starting the Film Search

The screen size is reduced, and only "Counter" display and "Film Position" adjustment can be operated while continuously scanning. In addition, the button display changes to "Cancel", and a continuous scanning can be stopped.

**Continuous Scanning**

7. **Close**

The screen is closed.

**NOTE !**
- The position where Multiple SCAN is stopped might vary.
- The film might not normally detect the frame depending on the image condition (shape and density).
- When the frame cannot be detected for a defined time, a message is displayed, and a continuous scan is canceled.
5.3 Multiple SEARCH

The frame (image) on the Roll Film is automatically detected, and it displays on the screen at constant intervals.

1. **Film Operating Direction**
   - When continuously retrieving, the film operating direction is set.

2. **Interval**
   - After the frame (image) is retrieved, the stop time is set.
   - It can be set from 2 to 10 seconds every second.

3. **Set Frame Counter**
   - The number of frames (image) continuously retrieved is set.
   - It can be set up to 9,999 frames.

4. **Counter**
   - The number of frames continuously retrieved is displayed.

5. **Film Position**
   - The position of the film stop is adjusted.

**NOTE !**
- The stop position of "Multiple SCAN", "Previous", and "Next" changes when the film position setting is altered.
- The film position can be adjusted while continuously retrieving.
6. SEARCH

The continuous searching begins.

**NOTE!**
- When starting the Multiple SEARCH, in order for space (black band) of Frame Advanced Pitch to be arranged in Search direction, adjusting the position of the film.

→ 5.4 Alignment when starting the Film Search

The screen size is reduced and only "Counter" display and "Film Position" adjustment can be operated while continuously retrieving. In addition, the button display changes to "Cancel", and a continuous retrieving can be stopped.

**Continuous Retrieving**

7. Close

The screen is closed.

**NOTE!**
- The position where Multiple SEARCH is stopped might vary.
- The film might not normally detect the frame depending on the image condition (shape and density).
- When the frame cannot be detected for a defined time, the message is displayed, and a continuous retrieving is canceled.
5.4 Alignment when starting the Film Search

When the Film Search operation (Previous Page Movement, Next Page Movement, Multiple SCAN and Multiple SEARCH) it executes, in order on advanced side of Search direction, the Space(black band) of Frame Advanced Pitch to be arranged, adjusting the position of the film.

Selecting the Roll Film, setting Initial Value “Horizontal Flip: ON and Image Rotation: OFF” the film alignment when is, below has been expressed with standard.

**Basic position of the film**

Basically, in order for both Spaces (black band) of Film Advanced Pitch to be visible, please adjust the position of the film.

In case below, both directions are searched.

**Only one side when the Space of Film Advanced Pitch cannot be allocated**

When it searches in FWD direction, in order for the Space (black band) of Film Advanced Pitch to be visible in the screen right side, adjust the position of the film.

In this case, it can search to FWD direction. However, it cannot search to REV direction.

When it searches in REV direction, in order for the Space (black band) of Film Advanced Pitch to be visible in the screen right side, adjust the position of the film.

In this case, it can search to REV direction. However, it cannot search to FWD direction.
1 Precautions for Operation

1.1 Main Unit
The following sections require special attention when operating the Scanner.

- Do not put anything on top of the Unit.
- Do not put items on the Fiche Glass.
- Do not put anything other than the film on the Fiche Glass.
- The Fiche Glass shuts when the carrier is pushed into the unit, do not place your hand or the fingers in this area.
- Do not place anything heavy on the Carrier Table, and prohibit leaning on it.
- Do Not Place hands or fingers in this area when the Carrier Table is pushed into the unit.

1.2 Roll Film Carrier (Option)
The following sections require special attention when operating the Scanner.

- Do not touch the reel when the film is being rewound.
- Do not apply any load to this area.
- Do not touch the film when rewinding.
2 Turning the Scanner ON/OFF

2.1 Turning ON the Power Switch

1 Check that the Scanner is securely connected to the Personal Computer with the USB Cable, and press the Power Switch of the Scanner to the ON (“I” Position).

![Power Switch]

**NOTE**
When the USB Cable that connects this machine with the computer is not securely connected, scanner image data cannot be read.

2.2 Turning OFF the Power Switch

1 Quit the application (SL-Touch for SL1000).
2 Press the Power Switch to the OFF (“O” Position).

![Power Switch]

**NOTE**
Do not turn OFF the Power Switch when the application is starting in the Scanning Mode.
2.3 Power Saving Features

The Exposure Lamp goes OFF, and the Indicator Lamp flashes when the Scanner has not been used for a determined amount of time, and it enters the Sleep Mode.
To return it to the Stand-by Condition, press any button of the application.

This machine shuts down when leaving it without any operation after a continued amount of time when in the Sleep Mode Condition.

**NOTE !**
- When returning from Sleep Mode, the initialization operation is done.
- It also returns from Sleep Mode if the Manual Switch is pressed once, when the Manual Switch (Option) is utilized.
- It also returns from Sleep Mode if the Fiche Glass is opened and closed when the Motorized Roll Film Carrier (Option) is utilized.
3 Operating the Fiche Film

3.1 Film Selection

1 "Film Selection" screen is opened by "SCAN Mode", and the type of the fiche film is selected.

3.2 Film Insertion

1 Take hold of the Carrier Handle and pull it forward fully, then the Fiche Glass will open.

NOTE ! When the Fiche Carrier is pulled out to the maximum position, do not put heavy objects on the Carrier Table. And, prohibit lean against the Fiche Carrier as is could cause damage.

2 Insert the film between the Fiche Glasses.

Aperture Card

Place the Card so that the film area is on the right side, face-up.

Fiche, Jacket Film

Place the film so that the title is toward the rear and face-up.
3 Position the Fiche Film on the Fiche Glass as shown on the figure below.

4 Place hands to both sides of the grips of the Fiche Carrier and fine-tune the image position.
4 Operating the Roll Film
(When optional Roll Film Carrier is installed)

4.1 Film Selection

1. From Scan Mode please open the Film Selection Screen. Select the film and “Show Roll Film Carrier” is turned “ON”. You can select "35 mm Roll Film", "16 mm Roll Film" Either of and “Custom”.

NOTE / When the Motorized Roll Film Carrier is used, it is necessary to turn “ON” “Show Roll Film Carrier”. Roll Film Carrier cannot be operated when setting is set to “OFF”.

![Film Selection Screen](image-url)
4.2 Selecting the Film Width 16 mm/35 mm

1. Pull out the front part of the Guide Roller, then reverse the directions of the roller and insert again.

2. Change the position of other Guide Rollers in the same manner (4 pieces in total).

---

**NOTE**

All of the directions of the Guide Rollers must be in the same orientation.

---

![16 mm Setting](image1)

![35 mm Setting](image2)
4.3 Loading the Roll Film

Motorized Roll Film Carrier

1. Mount the Roll Film onto the Reel Shaft and unwind the Leading Edge of the Film.

![Image of Roll Film Carrier]

**NOTE**
Be sure to set the film so that its winding direction is clockwise. The film will not be correctly rewound if the open reel Roll Film is mounted in the opposite direction. Install the Roll Film to the reel so that the square hole of the film and the square face can be adjusted.

2. Take hold of the Carrier Handle and pull it forward fully, then the Fiche Glass will open.

![Image of Carrier Handle being pulled]

3 Insert the Leading Edge of the Film between the Fiche Glasses.

NOTE! Route the film referring to the figure below.

4 Insert the Leading Edge of the Film into the slit in the Take-Up Reel and rotate the Take-Up Reel two to three turns so that the Film Leader is wound around the Take-Up Reel.

5 Move the Fiche Carrier so that the image is displayed.
Manual Roll Film Carrier

1. Remove the knob from the Reel Shaft.

2. Mount the Roll Film onto the Reel Shaft and unwind the Leading Edge of the Film.

**NOTE**

Be sure to set the film so that its winding direction is to be clockwise. The film will not be correctly rewound if the open reel Roll Film is mounted in the opposite direction.

Install the Roll Film to the reel so that the square hole of the film and the square face can be adjusted.
3 Insert the knob in the Reel Shaft.

![Diagram showing the knob and Reel Shaft]

**NOTE** When the knob is inserted, D hole is inserted into the D shape position of the Reel Shaft.

![Diagram showing the D hole and D shape]

4 Grasp the Carrier Handle and pull it forward fully, the Fiche Glass will then open.

5 Insert the Leading Edge of the Film between the Fiche Glasses Plate.

6 Insert the Leading Edge of the Film into the slit in the Take-Up Reel and rotate the Take-Up Reel two to three turns so that the Film Leader is wound around the Take-Up Reel.

7 Move the Fiche Carrier so that the image is displayed.
4.4 Feeding the Film
Motorized Roll Film Carrier

1. Press the following keys of “Roll Film Carrier” screen to operate the film.

It is locked when a key is double-clicked, and it keeps feeding the film at the same speed.

The film feeding stops when "Stop" is clicked at the lock condition.

NOTE / If you feed the film at high speeds, pull the Carrier Handle completely forward and then operate the Speed Control Button with the Fiche Glass open.

The state of the Fiche Glass (open/close), determines the Film Feeding Speed.

When the film is stopped, the motor will stop automatically after a few seconds.
Manual Roll Film Carrier

1  When the forwarding or the rewinding knob is turned, the film is advanced or reversed.

**NOTE**  The knob can be operated when the handle of the Carrier Table is pulled out to maximum, which opens the Fiche Glass for film high-speed feeding.
4.5  Rewinding the Film

Motorized Roll Film Carrier

1  Grasp the Carrier Handle and pull it gently out as far as it will go. This causes the Fiche Glass to swing up.

2  Click "Rewinding", and the film is rewound.

NOTE / When Fiche Glass is not open completely, "Rewinding" cannot be operated.
When the film is finished being rewound, the motor will stop automatically after a few seconds.

Manual Roll Film Carrier

1  Grasp the Carrier Handle and pull it gently out as far as it will go. This causes the Fiche Glass to swing up.

2  Turn the rewinding knob and the film is rewound.
4.6 Operation of the A-Type Cartridge Adaptor (Option)

NOTE !  A-Type Cartridge Adapter can be used for both Motorized Roll Film Carrier and Manual Roll Film Carrier.

When the 16 mm Cartridge Film (type: ANSI) is used.

1  Mount the 16mm Film Cartridge (type: ANSI) onto the Reel Shaft in the figure below and unwind the Leading Edge of the Film.

![Diagram of 16mm Film Cartridge Mounting]

NOTE !  • Be sure to set the film cartridge so that its winding direction is to be clockwise.  
• Push the cartridge into a bottom of the Reel Shaft when the cartridge is inserted.

2  Insert the film between the upper and lower fiche glass.

NOTE !  Set the film as shown in the figure below.

![Diagram of Film Insertion]

CAUTION  • Do not set it in a counterclockwise rolling so that the film surface might get the wound.

3  Insert the Leading Edge of the Film into the slit in the take-up reel and rotate the take-up reel two to three turns so that the Film Leader is wound around the take-up reel.

4  Operate the Fiche Carrier, and rewind the film to an image lead position.
When the 16 mm/35 mm Roll Film (Open-Reel) is used.

16 mm/35 mm Roll Film (Open-Reel) can be used with the A-Type Cartridge Adaptor installed.

1. Mount the 16 mm or 35 mm Film (Open-Reel) onto the Reel Shaft in the figure below and unwind the Leading Edge of the Film.

2. Insert the film between the upper and lower fiche glass.

   **NOTE**

   Set the film as shown in the figure below.

3. Insert the Leading Edge of the Film into the slit in the take-up reel and rotate the take-up reel two to three turns so that the Film Leader is wound around the take-up reel.

4. Operate the Fiche Carrier, and rewind the film to an image lead position.

   **CAUTION**

   - Do not set it in a counterclockwise rolling so that the film surface might get the wound.
4.7 Operation of the M-Type Cartridge Adaptor (Option)

NOTE ! M-Type Cartridge Adapter can be used only for the Motorized Roll Film Carrier installation machine.

When the M-Type Cartridge Film is used.

1 Insert the Axis of the Attachment A into the hole of the Drive Shaft.

2 Insert the 2 Pins of the Attachment A in the Notches of the Drive Shaft.

NOTE ! The position of Pins is adjusted so that Attachment Pins may surely connect it with notches.

NOTE ! The Drive Shaft and the Attachment A are attracted and held together by a magnet. When the Attachment A is removed, the head of the Attachment A is no longer attracted by the magnet, and it detaches.
3. Unwind the Leading Edge of the film in M-Type Cartridge.

4. Mount the M-Type Cartridge onto the Bracket so that the film position of Leading Edge is the lower direction and the hole side of the cartridge housing is the back direction.

**NOTE** / Be sure to insert the Hook of the Bracket into the square hole of the M-Type Cartridge. (see below drawing)

**NOTE** / Push the M-Type Cartridge until it clicks.
5 Insert the Leading Edge of the film between the Fiche Glasses.

**NOTE !** Route the film referring to the figure below.

[Image]

6 Insert the Leading Edge of the Film into the slit in the Take-Up Reel and rotate the Take-Up Reel two to three turns so that the Film Leader is wound around the Take-Up Reel.

7 Operate the Fiche Carrier, and rewind the film to an image lead position.

**NOTE !** Please execute according to the following procedures when the M-Type Cartridge is removed.

1 Pull the upper part of the M-Type Cartridge as arrow direction below.

[Image]

2 Pull out the M-Type Cartridge completely as arrow direction below.

[Image]
When the 16 mm/35 mm Roll Film (Open-Reel) is used.

1. Insert the Axis of the Attachment B into the hole of the Drive Shaft.

2. Insert 2 Pins of the Attachment B in the Notches of the Drive Shaft.

**NOTE!** The position of Pins is adjusted so that Attachment Pins may surely connect it with Notches.

**NOTE!** The Drive Shaft and the Attachment B are attracted and held together by a magnet. When the Attachment B is removed, the head of the Attachment B is no longer attracted by the magnet, and it detaches.
3. Insert the 16 mm/35 mm Open Reel.

4. Insert the Leading Edge of the film between the Fiche Glasses
   
   **NOTE**! Route the film referring to the figure below.

5. Insert the Leading Edge of the Film into the slit in the Take-Up Reel and rotate the Take-Up Reel two to three turns so that the Film Leader is wound around the Take-Up Reel.

6. Operate the Fiche Carrier, and rewind the film to an image lead position.
   
   **NOTE**! Please pull out the reel housing directly as arrow direction below when the 16 mm/35 mm Open Reel is removed.
Chapter 5
Troubleshooting
1 Problems with the Scanner

When any error occurs in the Scanner, an error message appears on the screen of the Personal Computer, the Indicator Lamp flashes and scanning stops. In this case, turn the Power Switch OFF and then back ON. Restart the Personal Computer. If the same message appears again, call your Authorized Dealer with details of the trouble and the Scanner condition.
## 2 Troubleshooting

### 2.1 Flashing display of the Indicator Lamp

<table>
<thead>
<tr>
<th>Indicator Lamp Situation</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator Lamp in front of the Main Body flashes approximately every second.</td>
<td>The main body is in the Sleep Condition. It returns normally from the sleep if any key of the application is pressed.</td>
</tr>
<tr>
<td>Indicator Lamp in front of the Main Body flashes approximately 0.5 cycle of second.</td>
<td>The Main Body is in need of service. Please contact an Authorized Dealer for Service.</td>
</tr>
</tbody>
</table>

### 2.2 Attention display on the Personal Computer Screen

<table>
<thead>
<tr>
<th>Information or Warning message</th>
<th>Action</th>
</tr>
</thead>
</table>
| SL-Touch                      | • Confirm the USB Cable Connection is properly connected for the SCAN Mode, start the application after the Scanner Power Switch is turned OFF and ON.  
                                  | • Close the Warning Screen for the VIEW Mode, and try the operation again.                                                             |
| SL-Touch                      | • When using the SCAN Mode, Scanner Power Switch is turned OFF/ON and change to the SCAN Mode.                                             
                                  | • Close the Warning Screen for the VIEW Mode, and try the operation again.                                                             |
| SL-Touch                      | • When using the SCAN Mode, Scanner Power Switch is turned OFF/ON and change to the SCAN Mode.                                             
                                  | • Close the Warning Screen for the VIEW Mode, and try the operation again.                                                             |
| Film Search                   | • The frame of the Roll Film was not able to be detected.                                                                               
                                  | • Search the target frame by manually.                                                                                                   |
### Information or Warning message

**SL-Touch**

![Warning Symbol] Save In refers to location that is unavailable.

- It is due to the non-detection of USB Memory or the shortage of the memory capacity in the preservation place.
- Please change the preservation setting to the large capacity place or insert the USB Memory etc.
- There is a possibility that the file is not normally preserved before displaying when this message is displayed.

### 2.3 Errors shown on the Personal Computer Screen

<table>
<thead>
<tr>
<th>Error message</th>
<th>Action</th>
</tr>
</thead>
</table>
| **SL-Touch Error**

- ![Error Symbol] Cannot find the Scanner. Connect the Scanner to the PC, install the driver, then boot up the software.

  - Start the application after connecting the Scanner with the Personal Computer, and installing the driver.

- ![Error Symbol] Turn OFF the power switch of the Scanner, and turn it ON again. Restart the Personal Computer.

  - After confirming that the USB Cable is properly connected, turn ON the Power Switch of the Scanner again and restart the computer.

- **SL-Touch Error**

  - ![Error Symbol] CCD Board Error. Turn OFF the power switch of the Scanner, and turn it ON again. Restart the Personal Computer.

  - After confirming that the USB Cable is properly connected, turn ON the Power Switch of the Scanner again and restart the computer.

- **SL-Touch Error**

  - ![Error Symbol] Zoom Motor Error. Turn OFF the power switch of the Scanner, and turn it ON again. Restart the Personal Computer.

  - After confirming that the USB Cable is properly connected, turn ON the Power Switch of the Scanner again and restart the computer.

- **SL-Touch Error**

  - ![Error Symbol] Focus Motor Error. Turn OFF the power switch of the Scanner, and turn it ON again. Restart the Personal Computer.

  - After confirming that the USB Cable is properly connected, turn ON the Power Switch of the Scanner again and restart the computer.
<table>
<thead>
<tr>
<th>Error message</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL-Touch Error</td>
<td>H/W Error. Turn OFF the power switch of the Scanner, and turn it ON again. Restart the Personal Computer.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>• After confirming that the USB Cable is properly connected, turn ON the Power Switch of the Scanner again and restart the computer.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>Invalid Shading data. The &quot;Shading&quot; adjustment must be completed.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>• It is necessary to adjust the Scanner. • Please contact the Authorized Dealer for Service, and explain the detail of the error and condition.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>Failed to read the Shading Data. The &quot;Shading&quot; adjustment must be completed.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>• It is necessary to adjust the Scanner. • Please contact the Authorized Dealer for Service, and explain the detail of the error and condition.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>Failed to read the HotPixel Data. The &quot;Shading&quot; adjustment must be completed.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>• It is necessary to adjust the Scanner. • Please contact the Authorized Dealer for Service, and explain the detail of the error and condition.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>Failed to read the White Balance Data. The &quot;White Balance&quot; adjustment must be completed.</td>
</tr>
<tr>
<td>SL-Touch Error</td>
<td>• It is necessary to adjust the Scanner. • Please contact the Authorized Dealer for Service, and explain the detail of the error and condition.</td>
</tr>
</tbody>
</table>
3 Trouble when scanning an image

<table>
<thead>
<tr>
<th>Trouble content</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Scanner does not start.</td>
<td>• Is it connected properly? Check if the USB Cable connected securely between the Scanner and the Personal Computer.</td>
</tr>
</tbody>
</table>

When a problem cannot be solved even after the troubleshooting described above is attempted, contact your Authorized Dealer for service.

4 Trouble when the Film Rewinding and Winding

<table>
<thead>
<tr>
<th>Trouble content</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>The film winding slows.</td>
<td>• Clean the inside of the guide roller with the cotton pad etc.</td>
</tr>
<tr>
<td>The film stops.</td>
<td>• Is the direction where the film is set correct? • Confirm the film set direction according to Chapter 4.</td>
</tr>
<tr>
<td>The film cannot be feeding at high speed.</td>
<td>• Is the Fiche Carrier set at a correct position? • Feed the film with the Fiche Carrier handle completely pulled forward (The glass opening condition).</td>
</tr>
</tbody>
</table>
Chapter 6

Maintenance
1 Maintenance

The following daily checks and cleaning are required to ensure the best possible performance and utmost safety for the Scanner.

1.1 Daily checks

1 Any of the following conditions could damage the Scanner or other electrical equipment. Move the Scanner immediately and eliminate the possible cause of malfunction.
   • The Scanner is placed on the Power Cord or other cables.
   • The Scanner is placed on a cord of other electrical devices.

2 If any of the following condition is found, turn the Scanner OFF immediately, unplug the Power Cord from the outlet, and call your local Authorized Dealer.
   • The Power Cord or USB Cable is damaged.
1.2 Cleaning

Fiche Glass

When dust and dirt adhere to the Fiche Glass, the original may not be read correctly. Please clean the Fiche Glass surface with a soft dry cloth.

1. Wipe the dirt of the fiche glass surface off with a soft cloth.
2. Remove the dust with the air blower or the brush.

Guide Roller

It might not be able to wind up the film when dirt adheres in the guide roller.

1. Clean the inside of the guide roller with the cotton pad etc.

**NOTE**
"Cleaning kit for the camera" like the figure below is recommended as a cleaning tool.
Chapter 7

Product Specifications
1 Major Specifications

<table>
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<tr>
<th>Type</th>
<th>Digital Film Scanner</th>
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</thead>
<tbody>
<tr>
<td>Image Sensor</td>
<td>Area Type Color CCD Sensor (14.22 Mega pixels)</td>
</tr>
<tr>
<td>Light Source</td>
<td>White LED for color</td>
</tr>
<tr>
<td>Lens Magnification</td>
<td>Optical Zoom : 6.8 - 54x</td>
</tr>
<tr>
<td></td>
<td>Optical Zoom + Electrical Zoom : 6.8 - 105x</td>
</tr>
<tr>
<td>Focus Adjustment</td>
<td>Auto or Manual</td>
</tr>
<tr>
<td>Optical Resolution</td>
<td>360dpi (A4 Landscape Conversion)</td>
</tr>
<tr>
<td>Scan Speed with recommended PC environment</td>
<td>Approx. 1 second</td>
</tr>
<tr>
<td></td>
<td>*It is provided for at the processing performance that doesn't depend on the PC specifications.</td>
</tr>
</tbody>
</table>

**Film Type**
- Color Film/Monochrome Film
- Negative Film/Positive Film
  - Micro Fiche Film
  - Jacket Film
  - Aperture Card
  - 16/35mm Roll Film
  - 16mm Cartridge Film (Type : A, M)
  - Micro Opaque
The maximum reading size: 47 mm x 34 mm

**Gradation**
- Internal : 36 bit, Output : 24 bit Color, 8 bit Gray scale, 1 bit B/W binary
- * B/W Binary : Manual Binary / Automatic Binary / Diffusion Dither
  It can be selected from 3 modes.

**Resolution**
- 75 / 100 / 150 / 200 / 240 / 300 / 400 / 600 dpi
- * 600dpi : Only the Gray Scale and Monochrome Binary can be set.
  Even A4 or Letter or less can be set.

**Output Size**
- a. Formal Size
  - A3 P/L, A4 P/L, B4 P/L, B5 P/L
  - Ledger P/L, Legal P/L, Letter P/L, Check (8 1/2"x3 2/3") P/L
- b. Discretion Size
  It specifies with the Cropping Area.

**File Output Format**
- JPEG, TIFF (Compression / Non-compression / G4), PNG, BMP, PDF
- TIFF multi page, PDF multi page

**Interface**
- USB 2.0 High Speed (The length of the USB Cable is 2.0 m or less.)
- *The PC Standard Equipment Port can be used.

**OS Compatibility**
- 32 bit OS: Windows Vista SP2 or later, Windows 7, Windows 8
- 64 bit OS: Windows Vista SP2 or later, Windows 7, Windows 8

**Recommended PC System**
- CPU : Intel Core i7 870 2.93 GHz or faster
- MEMORY : 4 GB or greater
- VIDEO : GeForce GT430 1 GB or greater
- HDD : SATA 3 7200 rpm or greater
- PC Monitor : Multi Touch Panel
  (Full HD) 1,920 x 1,080 dot or
  (SXGA) 1,280 x 1,024 dot
<table>
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<th><strong>Chapter 7 Product Specifications</strong></th>
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<td><strong>Power Source</strong></td>
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<td><strong>Operating Environment</strong></td>
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<td><strong>Environment Standard</strong></td>
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<tr>
<td><strong>Options</strong></td>
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</table>
For Key Operator’s Use

When you need to call for service, turn OFF the Power Switch first, and unplug the Power Cord from the Outlet. The Key Operator should be prepared to provide the following information to your Local Authorized Dealer.

1. Your Company Name, address, telephone number, department name, floor number, machine location, etc.
2. Model name, serial number, condition or system(s) indication(s) on the display. Etc.

For your reference purpose.

<table>
<thead>
<tr>
<th>Model Name</th>
<th>SL1000</th>
<th>Serial No.</th>
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<tbody>
<tr>
<td>Attached Accessories</td>
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<tr>
<td>Application</td>
<td>SL-Touch for SL1000</td>
<td>Version.</td>
</tr>
</tbody>
</table>

Installation Data

Authorized Dealer’s Name
TEL. No.
Address