

CSX500 SERIES

IMAGE SCANNER

USER'S MANUAL

MANUAL NO.CSX500-UM-152



GRAPHTEC


ДЕЛОВАЯ
ИНИЦИАТИВА
www.delinit.by

TO ENSURE SAFE AND CORRECT USE

- To ensure the safe and correct use of your Image Scanner, read this manual thoroughly prior to use.
- After reading this manual, store it in a safe place for reference as necessary.
- Do not allow small children to touch the Image Scanner.
- The following describes important points for safe operation. Be sure to observe them strictly.

Conventions Used in This Manual

To ensure the safe and correct use of the Image Scanner as well as to prevent human injury and property damage, the safety precautions provided in this manual are ranked into the three categories described below. Be sure to gain a full understanding of the difference between each of the categories before reading the manual.



This category provides information that, if ignored, is highly likely to cause fatal or serious injury to the operator.



This category provides information that, if ignored, is likely to cause fatal or serious injury to the operator.



This category provides information that, if ignored, could cause injury to the operator or physical damage to the Image Scanner.

Description of Safety Symbols



The  symbol indicates information that requires careful attention (including warnings). The specific point requiring attention is described by an illustration or text within or next to the  symbol.



The  symbol indicates an action that is prohibited. Such prohibited action is described by an illustration or text within or next to the  symbol.



The  symbol indicates an action that must be performed. Such imperative action is described by an illustration or text within or next to the  symbol.

SAFETY PRECAUTIONS

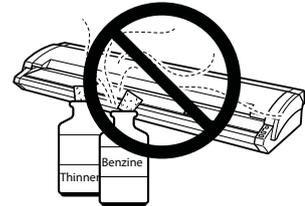
To ensure the safe and correct use of your Image Scanner, be sure to observe the following points.

Installation Precautions

⚠ Warning

Do not install the scanner in the vicinity of volatile solvents such as alcohol or thinner.

- A volatile solvent coming into contact with any of the internal electrical components may result in a fire hazard or electric shock.



Do not place objects such as those listed below on top of the scanner.

- Objects such as these coming into contact with any of the internal electrical components may result in a fire hazard or electric shock.
 - ◆ Metallic objects such as necklaces
 - ◆ Objects such as glasses, vases, houseplants, etc. that contain water or other fluids

If any of these objects does come into contact with the internal electrical components immediately turn off the power, remove the plug from the power outlet, and either contact the store where you purchased your scanner or your nearest Graphtec representative.



⚠ Caution

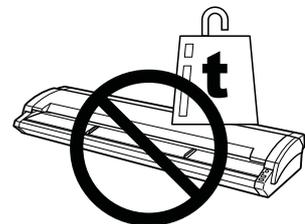
Do not use the scanner in an unstable location such as on a slope or a location that is subject to a lot of vibration.

- Such locations may cause the scanner to tip over and cause injuries.



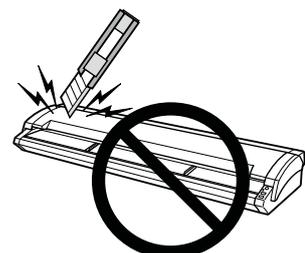
Do not place heavy objects on the scanner.

- Such objects may tip over or fall off, causing injuries.



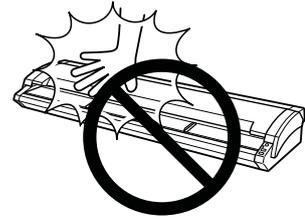
Do not use sharp, pointed articles on the scanner.

- Such action may impair the scanner's performance and cause the scanner to malfunction or break down.



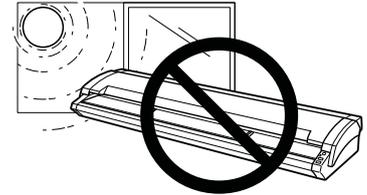
Do not exert pressure on the scanner.

- Such action may impair the scanner's performance and cause the scanner to malfunction or break down.
- Such action could cause injury to the operator.



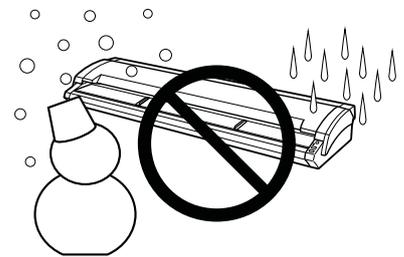
Avoid installing the scanner in any of the following locations.

- Use in such locations may result in a fire hazard or electric shock.
 - ◆ Excessively humid or dusty locations
 - ◆ Locations exposed to direct sunlight
 - ◆ Locations exposed to high temperatures
 - ◆ Locations near flames or moisture



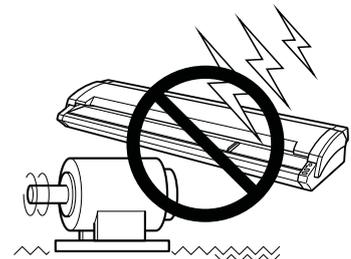
Do not install, use, or store the scanner in a location that does not meet the specified temperature and humidity ranges.

- Such location may impair the scanner's performance due to deformation or damage, and cause the scanner to malfunction or break down.



Do not install, use, or store the scanner in a location subject to excessive mechanical vibration or electrical noise.

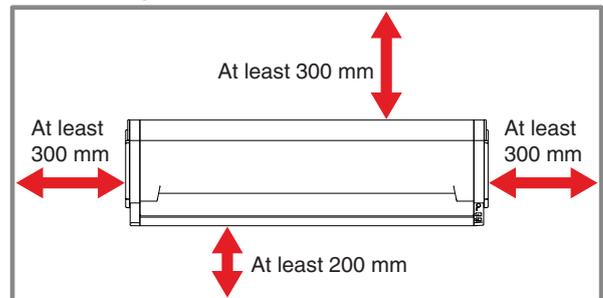
- Such location may impair the scanner's performance and cause the scanner to malfunction or break down.



Leave plenty of space around the scanner.

- Leave sufficient space for operations in front of and behind the scanner.

When using the scanner on a desktop

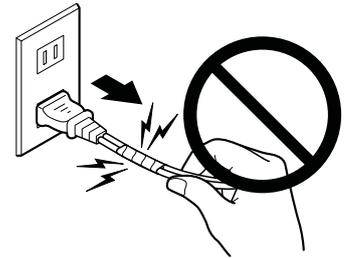


Power Supply Precautions

Warning

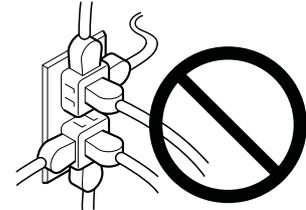
Do not damage the power cable, or modify it in any way. Moreover, do not place heavy objects on the power cable, pull on the cable, or bend it excessively.

- There may be current leakage from the damaged parts, resulting in a fire hazard or electric shock.
- Do not unplug or plug in the power cable when your hands are wet. Such action may result in electric shock.



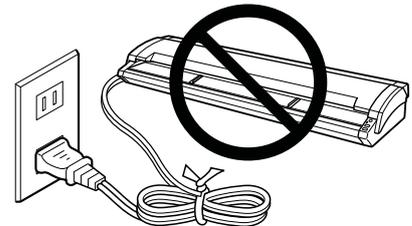
Do not connect multiple devices to the same power outlet.

- Use of the scanner in such a condition may result in a fire hazard or electric shock.



Do not bundle or tie-wrap the power cable.

- Use of a bundled power cable may result in a fire hazard or electric shock.



Make sure that the power cable is firmly inserted into the power outlet.

- Use of a power cable when the plug is not completely inserted into the power outlet may result in a fire hazard or electric shock.



Do not use a power cable other than the one supplied with your scanner.

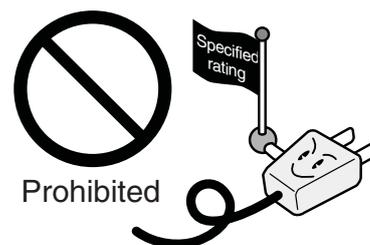
- Use of a different power cable may result in a fire hazard or electric shock.



⚠ Caution

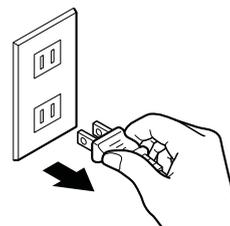
Do not connect the scanner to a non-rated power supply.

- Use of a different supply voltage may result in electrical shock or a fire hazard due to current leakage.



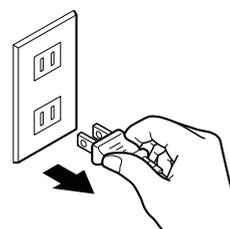
Before disconnecting or reconnecting the power cable, be sure to turn off the scanner.

- Failure to do so may impair the scanner's performance and cause the scanner to malfunction or break down.
- Failure to do so may result in electric shock.



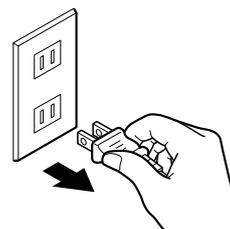
When disconnecting the power cable, be sure to hold on to the plug, and not pull on the cable itself.

- Pulling on the cable will expose the core wires, or cause damage such as broken wires. Current leakage from the exposed or damaged areas may result in a fire hazard or electric shock.



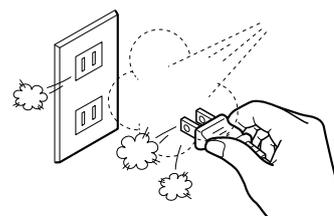
Before cleaning the scanner, be sure to unplug the power cable from the power outlet.

- Failure to do so may result in electric shock.



Do not allow dust or metallic matter to adhere to the power plug.

- If the power plug becomes dirty, thoroughly wipe it clean.
- The use of a dirty power plug may result in a fire hazard or electric shock.



As a general rule, do not use an extension cord.

- Use of an extension cord may result in a fire hazard or electric shock.

If you must use an extension cord, unbundle it, and make sure that the power plug is firmly inserted into the extension cord socket.



Make sure that the power plug can be readily unplugged at any time, and that there are no objects placed in its vicinity.

- Objects placed in the vicinity of the power plug will prevent its removal in an emergency.

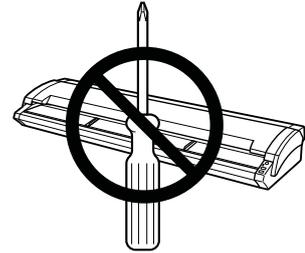


Handling Precautions

Warning

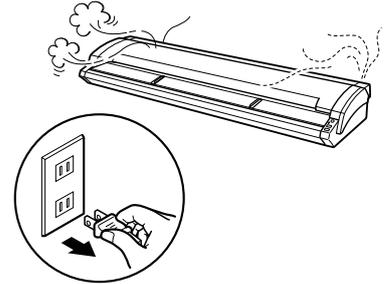
Do not disassemble or modify the scanner.

- Such actions may result in a fire hazard or electric shock.



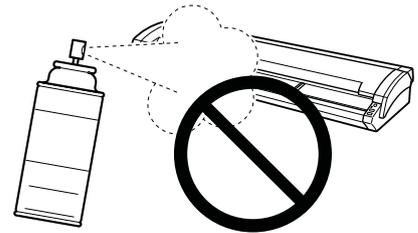
If the scanner makes an unusual noise, generates smoke, overheats, emits a strange odor, or otherwise functions abnormally, immediately turn off the power, remove the plug from the power outlet, and either contact the store where you purchased your scanner or your nearest Graphtec representative.

- Use of the scanner in such a condition may result in a fire hazard or electric shock.



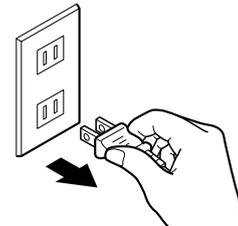
Do not use flammable aerosols or similar products in the vicinity of the scanner.

- The gas contained in the spray may cause a fire hazard or electric shock if it comes into contact with the scanner's internal electrical components.



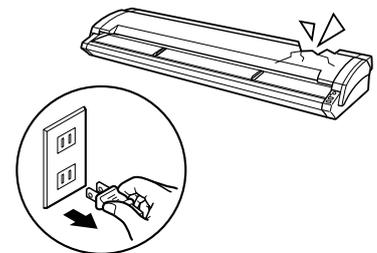
Before moving the scanner, make sure that the main power switch is in the “off” position and that the power plug has been removed from the power outlet.

- If the scanner is moved while it is still plugged into the power outlet, the power cable may be damaged and cause a fire hazard or electric shock.



If the scanner is damaged from being dropped or other impact, turn off its power and remove the power plug from the power outlet.

- Use of the scanner in such status may result in a fire hazard or electric shock.
- Request repair by contacting the store where you purchased your scanner or your nearest Graphtec representative.
- Never try to perform repair yourself. Repair work by inexperienced personnel is extremely dangerous.

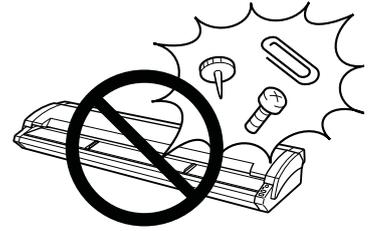


⚠ Caution

Take care not to drop metallic items such as paper clips or staples, or spill water, other fluids or flammable solvents (alcohol, benzene, thinner, etc.) inside the scanner.

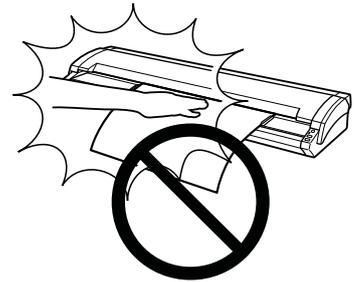
- Metallic items or fluids coming into contact with the internal electrical components may result in a fire hazard or electric shock.

If such items or fluids fall or are spilled inside the scanner, immediately turn off the power, remove the power plug from the power outlet and either contact the store where you purchased your scanner or your nearest Graphtec representative.



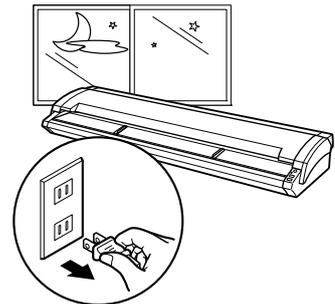
Do not insert your hands inside the scanner during a scanning operation or when a document is being fed.

- Moving parts inside the scanner may cause injuries.



If the scanner will not be used for an extended length of time, such as at night, turn off the main power switch as a safety precaution.

- In addition, if the scanner will not be used for longer periods of time, such as a long weekend, remove the power plug from the power outlet as an additional safety precaution.

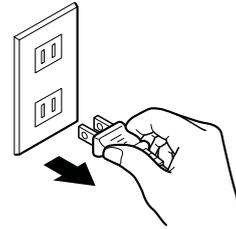


Maintenance and Inspection Precautions

Warning

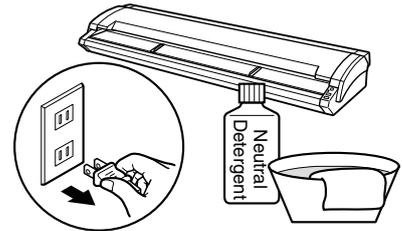
Be sure to turn off the power and remove the power plug from the power outlet before performing any cleaning operations.

- Failure to do so may result in a fire hazard or electric shock. Moreover, there is a risk of injury if the scanner starts to move during a cleaning operation.



To clean the scanner, use a cloth that has been dampened with neutral detergent and then well wrung out. Do not use volatile solvents such as alcohol, benzene or thinner to clean the scanner.

- A volatile solvent coming into contact with any of the internal electrical components may result in a fire hazard or electric shock.



Do not attempt to lubricate the scanner's mechanisms.

- Such action may impair the scanner's performance and cause the scanner to malfunction or break down.
- Such action may cause a fire hazard or electric shock due to a short circuit or overheating.



Caution

At least once a year, remove the power plug from the power outlet and clean the prongs and surrounding areas.

- A build-up of dust may result in a fire hazard.

When cleaning or checking the inside of the scanner, make sure that metallic objects such as a necklace or bracelet do not come into contact with any of the internal components.

- Such actions may result in injuries or an electric shock.

When removing a document that has become jammed inside the scanner, take care not to cut your fingers on the edges of the document.

- Such actions may result in injuries.

WARNING

Only computers or peripherals (computer input/output devices, terminals, printers, etc.) certified as complying with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules, may be attached to this product when this product is operated in a residential environment. Operation with non-certified peripherals is likely to result in interference to radio and TV.

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

"This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

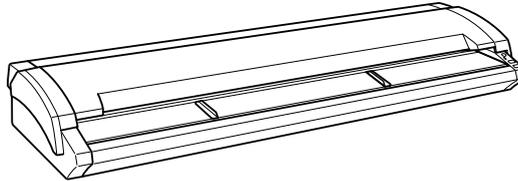
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct interference by one or more of the following measures:

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

INTRODUCTION

Thank you for choosing the Graphtec CSX500 Series Image Scanner.

Please read this manual thoroughly before attempting to use your new product to ensure that you use it safely and correctly.



Notes on this Manual

- (1) No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior written permission of Graphtec Corporation.
- (2) The product specifications and other information in this manual are subject to change without notice.
- (3) While every effort has been made to provide complete and accurate information, please contact your nearest Graphtec representative if you find any unclear or erroneous information or wish to make other comments or suggestions.
- (4) Notwithstanding the stipulation in the preceding paragraph, Graphtec Corporation assumes no liability for damages resulting from either the use of the information contained herein or the use of the product.

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International ENERGY STAR® Program

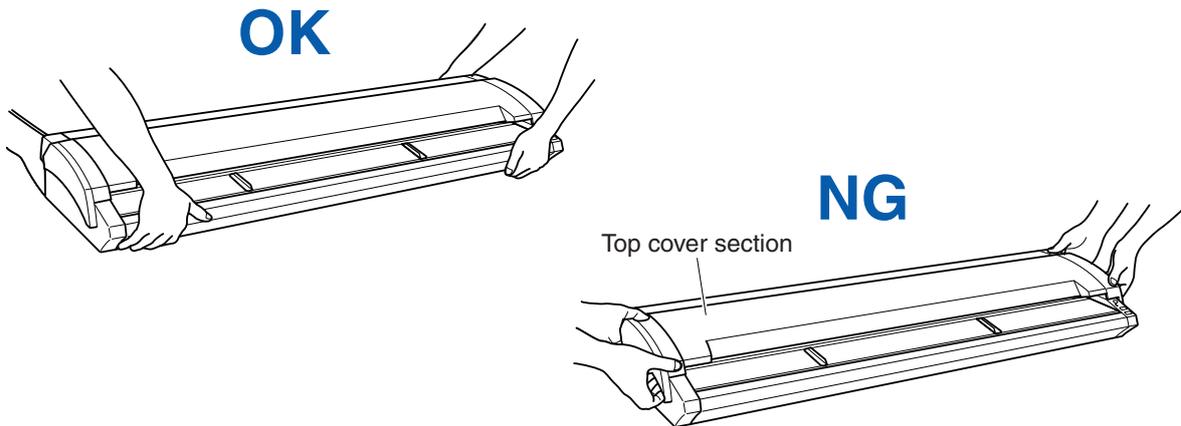


As an ENERGY STAR®* Partner, Graphtec. has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

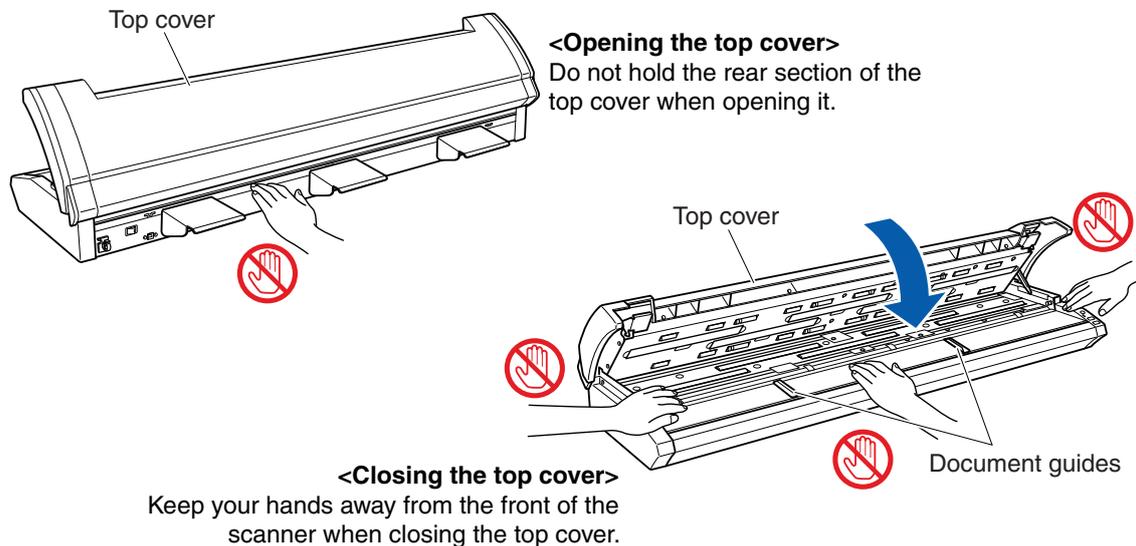
* The International ENERGY STAR® Office Equipment Program is a global program that promotes energy saving through the use of computer and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which businesses can participate voluntarily. The targeted products are office equipment such as computers, monitors, printers, faxes, copiers. Their standards and logos are uniform among participating nations.

Usage precautions

Do not lift or move the scanner by holding the top cover section, as doing so may damage the scanner. Always lift the scanner by holding the underside.



Take care not to get your fingers caught in the gap between the top cover and the scanner unit when opening and closing the top cover.



When closing the top cover, please be careful not to pinch the document guides.

Always ensure that you open the top cover and remove the cushion material before using the scanner. (See Section 4.1, "Opening and Closing the Top Cover".)

Scanner warm-up

A warm-up period is not usually required for the CSX500 Series. However, if you plan to scan a color document (in particular a document with many light colors), we recommend that you allow the scanner to warm up for 10 minutes before scanning the document.

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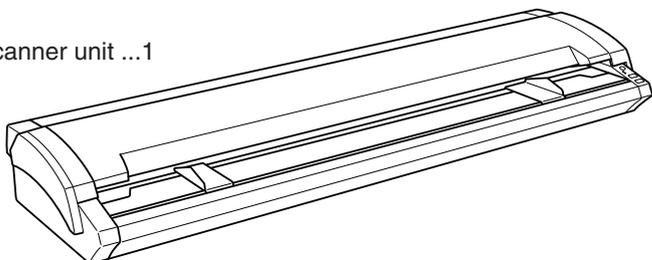
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CHAPTER 1 BEFORE USING THE SCANNER

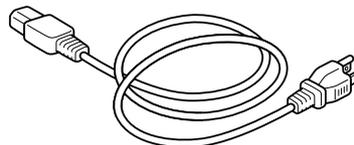
1.1 Checking the Contents of the Package

Check to confirm that all of the items shown below are present. If any item is missing, promptly contact the store where you purchased your scanner or your nearest GraphTEC representative.

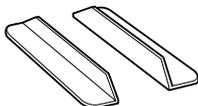
Scanner unit ...1



Power cable ...1



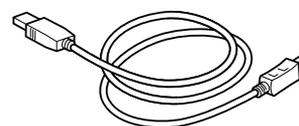
Document guides ...2



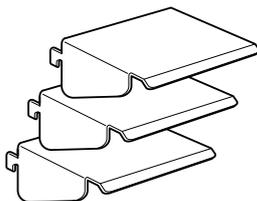
Cable clamp ...1



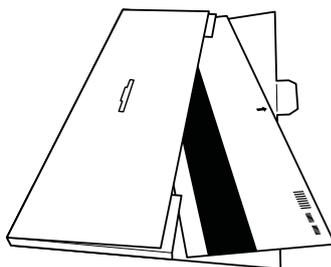
USB cable ...1



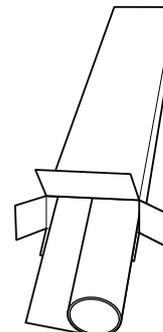
Document support plates ...3



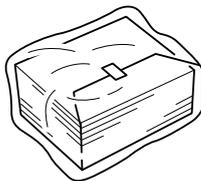
Calibration sheet ...1



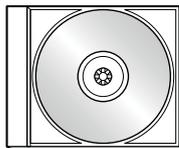
Carrier sheet (A0) ...1
(CSX530/CSX550 only)



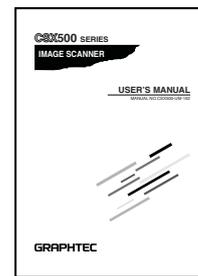
Cleaning paper ...1



Driver software ...1

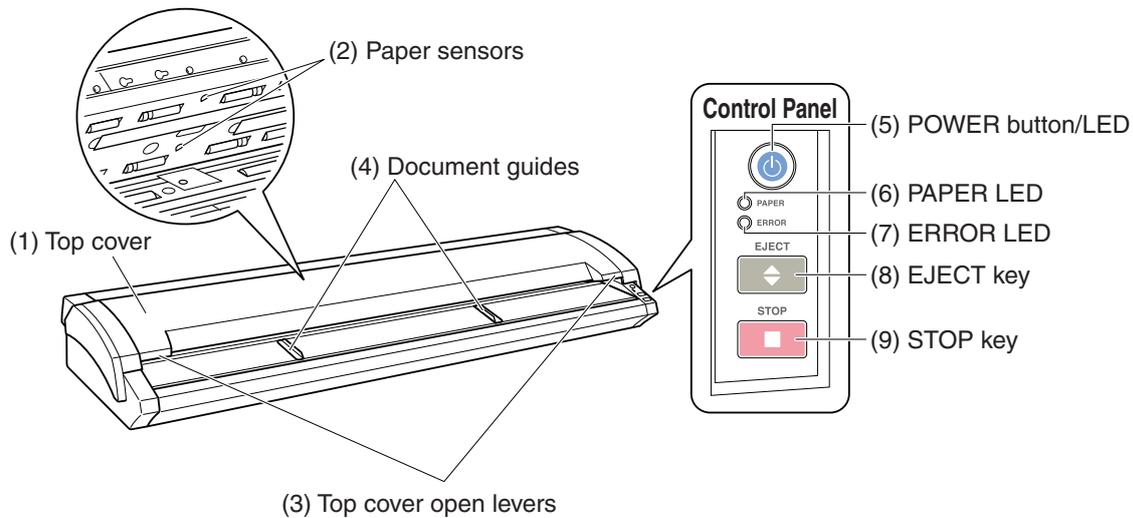


USER'S MANUAL ...1



1.2 Part Names and Functions

Front View/Control Panel



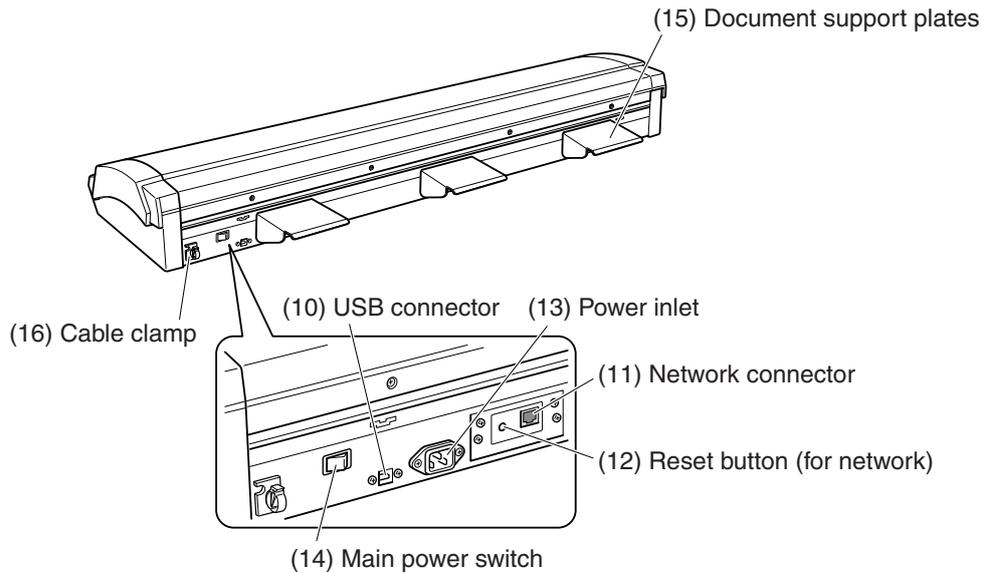
Front View

- (1) Top cover Open the top cover to clean the document hold-down unit and transparent contact plates.
- (2) Paper sensors These sense whether a document is present in the scanner.
- (3) Top cover open levers Press these levers to open the top cover.
If the top cover is opened during a scanning operation, the operation will be stopped compulsorily.
- (4) Document guides Use these guides to determine the position of a document when you load the document.

Control Panel

- (5) POWER button/LED (blue)
..... Controls the on/off status of the power supply to the scanner.
Lit: The scanner is turned on.
Flashing: Flashes when the scanner is in power-saving mode.
Unlit: The scanner is turned off.
- (6) PAPER LED (green) Lit: Lights when a document has been loaded.
Flashing: Flashes while image data is being scanned.
Unlit: Normal status (Local status).
- (7) ERROR LED (red) Lit: Lights to indicate a hardware error. (see Section 5.3)
Flashing: Lights to indicate a hardware error. (see Section 5.4)
Unlit: Normal status
- (8) EJECT key Press this key to feed the document.
If this key is pressed when the scanner is in document-loaded status, the document-loaded status is canceled and the document is ejected to the front of the scanner.
If this key is pressed after the scanning operation has been canceled or after scanning of the document was halted partway through the scanning operation, the document-loaded status is canceled and the document is ejected to the rear of the scanner.
- (9) STOP key Compulsorily stops scanning/feeding of the document.
If the ERROR LED flashes when the top cover is in the closed status, press this key to suspend the scanning operation and check whether a paper jam has occurred.

Rear View



(10) USB connector Used to connect the USB interface cable.

(11) Network connector * Used to connect the Network interface cable.

(12) Reset button (for network) *

..... This will initialize the network environment. Use the Network Utility to reconfigure your settings. (see Section 2.7)

(13) Power inlet Used to connect the power cable.

(14) Main power switch Used to turn the main power supply on or off.

(15) Document support plates

..... Used to support the document that is being ejected.

(16) Cable clamp Used to bundle the power cable and USB cable together and fasten them in place.

* CSX550-09 only



Caution

Both USB and network connection cannot be executed simultaneously. Please refrain from connecting the USB cable and the network cable to a single computer at the same time.

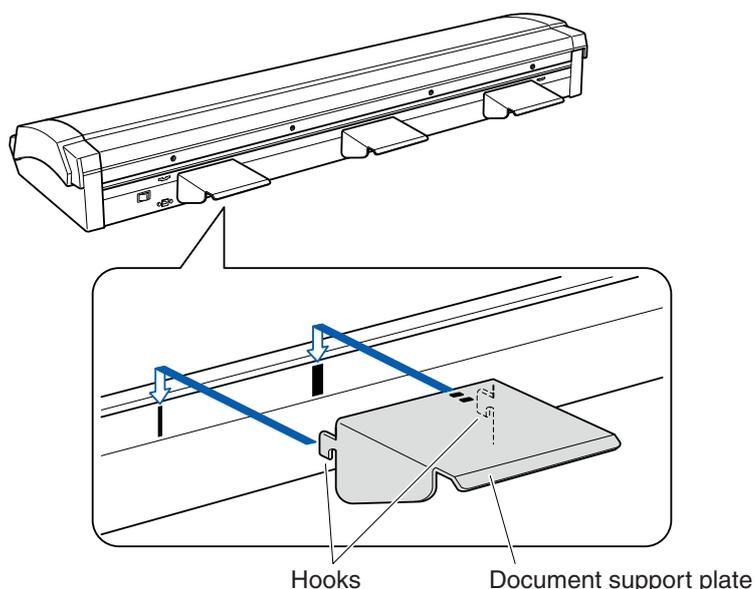
1.3 Assembling the Scanner

Please see the separate Stand Assembly Instruction Manual for instructions on how to assemble the stand.

Attaching the document support plates

Always be sure to install the document support plates, irrespective of the type of documents to be scanned.

- (1) Take one of the document support plates provided, and insert its hooks into the slots at the rear of the scanner. Insert the hooks from the top of the slots.



- (2) Attach the other document support plates in the same manner.



Detach the document support plates when moving or packing the scanner. Lift the plates up and out of the slots to detach them.

Attaching and using the cable clamp

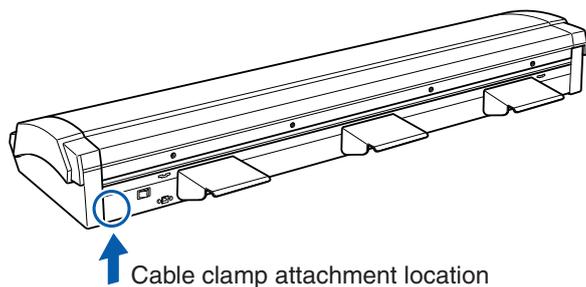
Attach the cable clamp to the scanner, and then pass the power cable, USB cable and network cable (CSX550-09 only) through the clamp to fasten them in place.



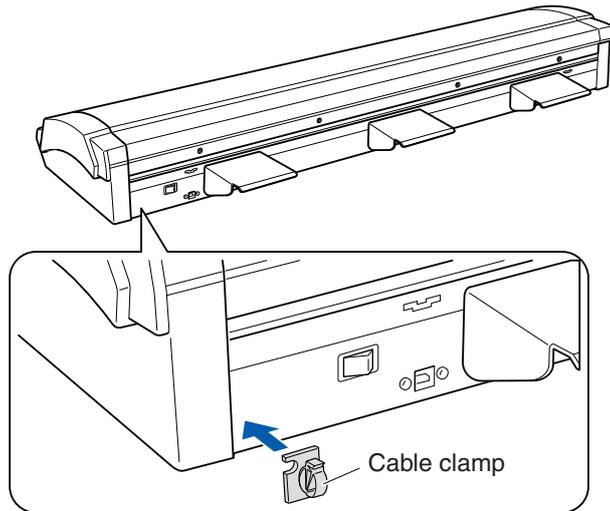
Be sure to attach the cable clamp to the scanner and use it to fasten the power cable, USB cable and network cable (CSX550-09 only) in place. Failure to do so may affect the scanning operation.

Attaching the clamp

- (1) Using a soft cloth that has been soaked in water or diluted neutral detergent and then firmly wrung out, wipe off any dust or dirt on the surface of the attachment location before attaching the cable clamp.



- (2) Wipe the area once again with a soft, dry cloth to thoroughly remove any traces of moisture.
- (3) Peel off the adhesive sticker on the rear of the clamp and then attach the clamp to the scanner.

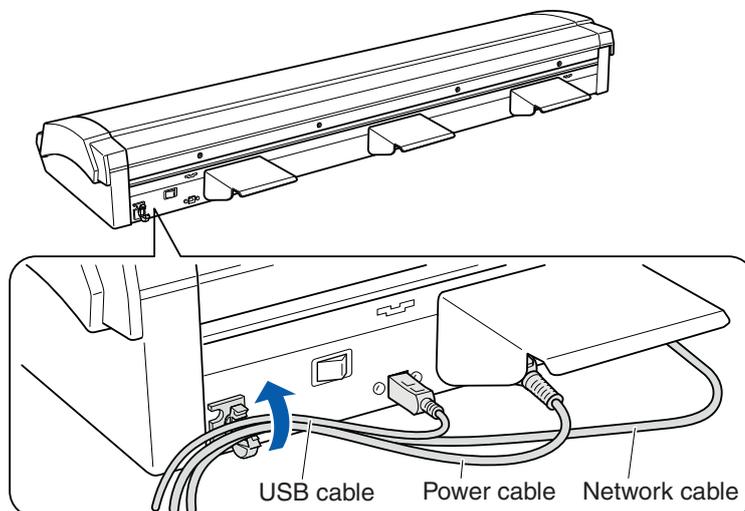


Using the clamp

- (1) Pull up the latch at the top of the cable clamp to open the clamp.



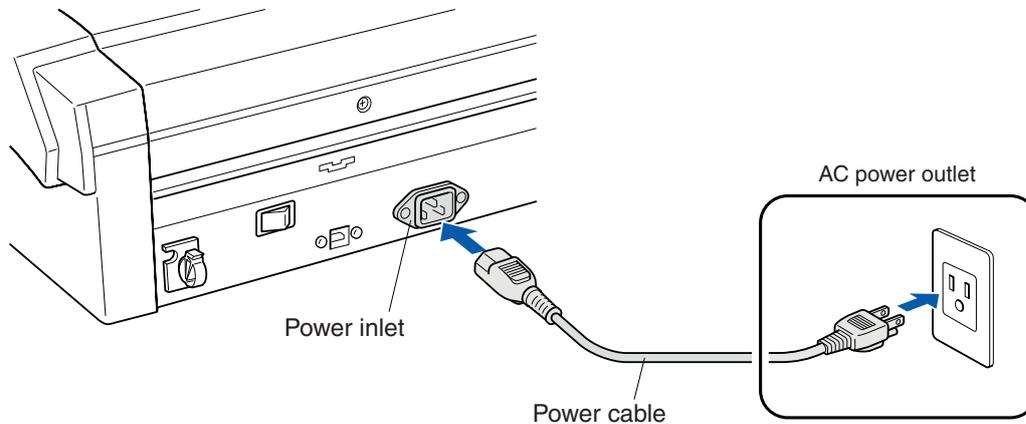
- (2) Pass the power cable, the USB cable and the network cable (CSX550-09 only) through the cable clamp, and then close it.



CHAPTER 2 CONNECTION AND PREPARATIONS

2.1 Connecting to the Power Supply

Connect one end of the power cable provided to the scanner's power inlet and the other end to an AC power outlet of the rated supply voltage.



Caution

Be sure to use the cable clamp provided with the scanner to fasten the power cable in place. Please see "Attaching and using the cable clamp" in Section 1.3, "Assembling the Scanner" for further details.

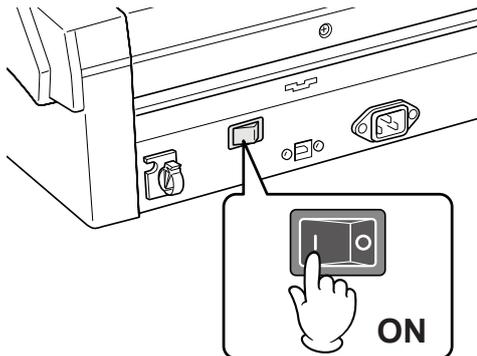
2.2 Turning the Power On and Off

The LED (blue) on the [POWER] button changes as follows to indicate the scanner's power supply status.

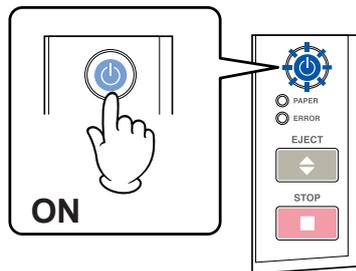
- Unlit: The scanner is turned off.
- Lit: The scanner is turned on.
- Flashing: Flashes when the scanner is in power-saving mode.

Turning the Power On

- (1) Connect the power cable.
- (2) Turn on the main power switch (the I side).



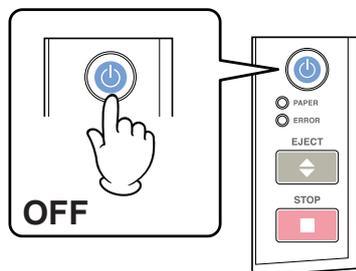
- (3) Press the [POWER] button on the scanner's control panel.
When the scanner is in the power-on status, the [POWER] button LED lights blue.



Turning the Power Off

Press the [POWER] button on the scanner's control panel.

When the scanner is in the power-off status, the [POWER] button LED is extinguished.



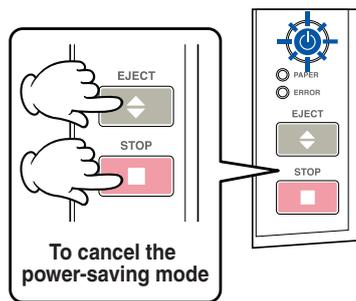
- After the scanner has been turned off, wait at least five seconds before turning it on again.
- If you do not plan to use the scanner for any length of time, turn off the main power switch (the O side).



Do not turn off the main power switch (the O side) on the rear of the scanner while the scanner is the power-on status.

Notes on the power-saving mode

The scanner automatically switches to power-saving mode (the blue LED on the power button flashes) after approximately 13 minutes have elapsed without a document being loaded in the scanner. To return the scanner to normal status (Local status), press either the [STOP] or the [EJECT] key.



If a document has been loaded in the scanner, the scanner will not switch to power-saving mode.

2.3 System Requirements

The minimum system requirements for running the scanner's hardware and software are listed below.

OS: Windows XP Professional/Home Edition

Windows Vista Ultimate/Business/Home Premium/Home Basic

Windows 7 Ultimate/Enterprise/Professional/Home Premium

PC: Environment that the OS is working properly

(Recommended environment

CPU: Dual Core or higher grade Memory: 3 GB or more)

Hard Disk Drive: Disk space amount that can contain the scanned-in data

Monitor: 1024 x 768 pixels, True Color display

Mouse

Network Interface: 10BASE-T/100BASE-TX/1000BASE-T

(to connect the scanner via the Network interface)

USB 2.0 Interface: that comes standard with your computer

(to connect the scanner via the USB interface)



If you want to scan in and edit grayscale or color data, you may need a memory larger than the recommended size.

Depending on the document, it may not be possible to scan in the images it contains or the process may slow down even if the memory size is increased.

If you encounter such a problem, from the Scanning Master Pro Color 'OPS115' menu select Tools menu > Options > General tab and enable "Use Work File". In addition, enable "Specify Folder" and then specify a folder that contains sufficient available space.

2.4 Connecting the Scanner to a Computer

Important!

- Make sure that the USB cable is firmly inserted into the interface connectors.
- The operation of the scanner cannot be guaranteed in the following cases:
 - ◆ When the cable is connected to a USB hub or an add-on USB board.
 - ◆ When you are using a custom-built computer or one that you have modified.
 - ◆ When you are using a cable that is longer than 3 meters in length.
(Please use the USB cable that is provided with your scanner.)
- Do not perform any of the following actions:
 - ◆ Remove or reinsert the cable while you are installing the driver.
 - ◆ Remove or reinsert the cable while starting up the computer or the scanner.
 - ◆ Remove or reinsert the cable while transferring data.
 - ◆ Connect two or more scanners to a single computer.

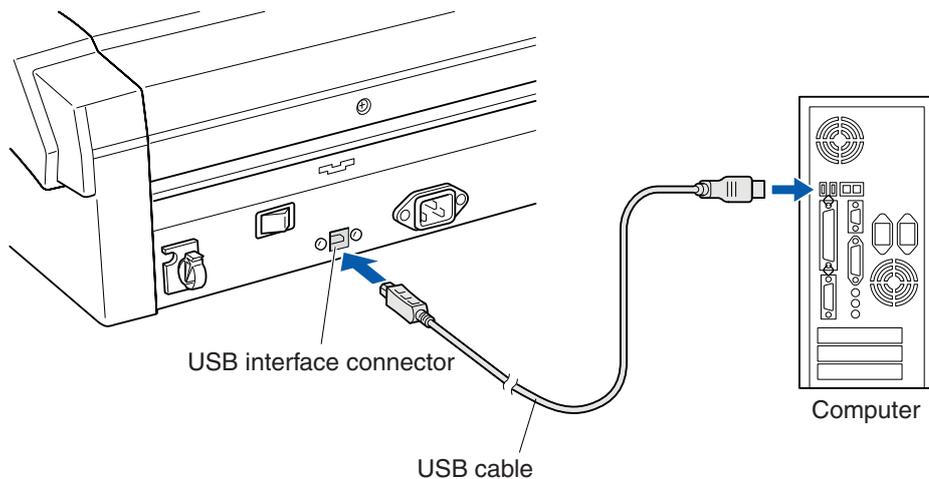
Caution

Be sure to use the cable clamp provided with the scanner to fasten the USB cable and the network cable (CSX550-09 only) in place. Please see “Attaching and using the cable clamp” in Section 1.3, “Assembling the Scanner” for further details.

USB Connection

A USB cable is used to connect the scanner to the computer, via the respective USB interface connectors. The connectors at the computer and scanner ends of the USB cable have different shapes.

Make sure that the cable is oriented correctly before making the connection.



Network Connection (CSX550-09 only)



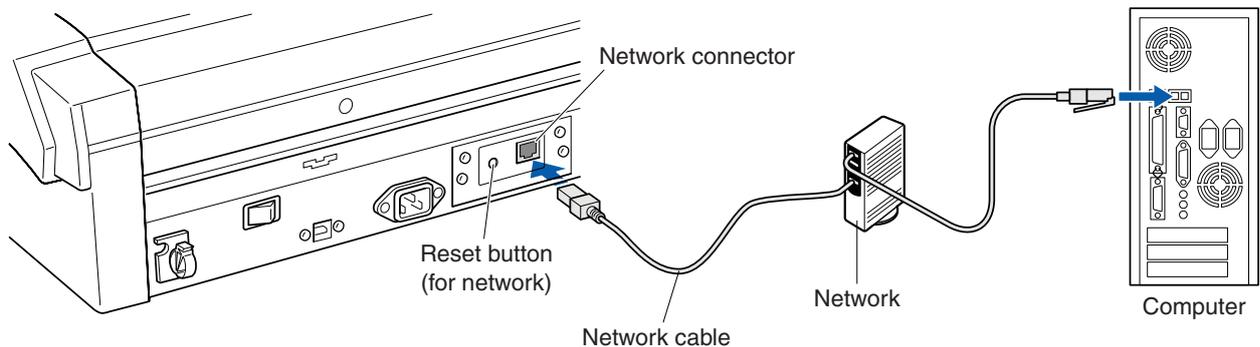
Caution

Both USB and network connection cannot be executed simultaneously. Please refrain from connecting the USB cable and the network cable to a single computer at the same time.

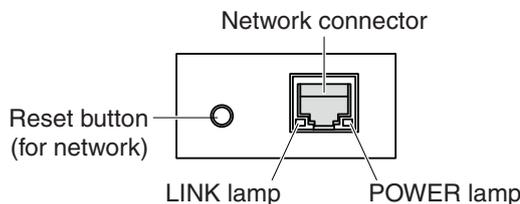


- You will need a network (LAN) cables and network hub to connect via Network. You will need to purchase them separately.
- Structures of the network equipment and necessity of the router function depends on the environment. For description, refer to the manual of the equipment, check with the manufacturer or the network administrator.
- The scanner is compliant with 10BASE-T/100BASE-TX/1000BASE-T. Check your network environment.

A Network cable is used to connect the scanner to the computer, via the respective Network interface connectors.



Network Connector



After turning the scanner's power on, confirm that the POWER lamp (right side) is flashing yellow. LINK lamp (left side) flashes orange when connected to the 10Base-T/100Base-TX, and green when connected to the 1000BASE-T.

Reset Button (for network)

This is used when the network environment has changed.

Turning the power on while pressing the reset button will cause the network environment to be initialized.

Use the Network Utility to reconfigure your settings. (see Section 2.7)

2.5 Installing the Scanner Driver Software



The procedure outlined below is based on the requirement that you are logged on to Windows with administrator rights. Consult your Windows manual and Windows Help for more information.

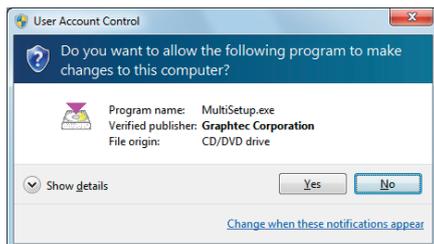
For Windows 7

- (1) Turn on the computer. (Do not connect the scanner yet.)
- (2) Insert the "IMAGE SCANNER USER GUIDE CD-ROM," which came with the scanner, into the CD-ROM drive.

AutoPlay screen will appear shortly. Select [Run MultiSetup.exe] from there.

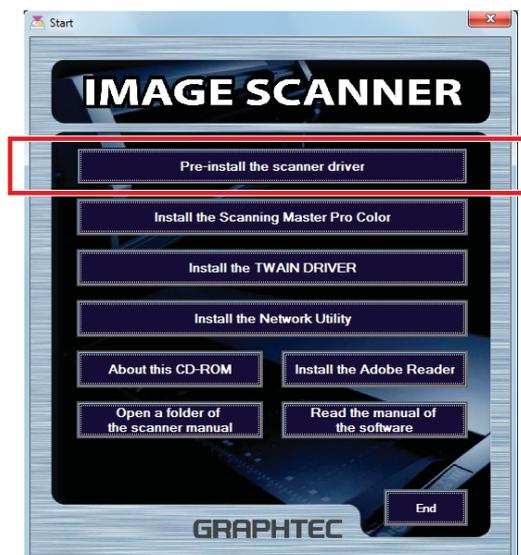


- (3) The User Account Control screen is displayed. Click [Yes] to proceed with the installation.



- (4) The "Setup menu" screen starts automatically. Next, select the "Pre-install the scanner driver" button.

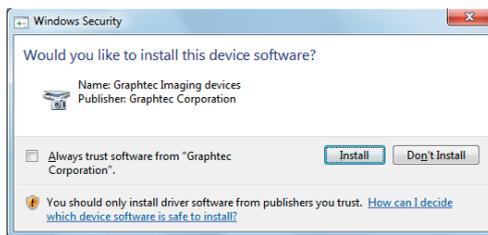
If the "Setup menu" screen does not start, open Windows Explorer, and double-click on "MultiSetup.exe" within the CD-ROM folder.



(5) The screen shown below appears. Click the [Next] button



(6) The screen shown below is displayed. Click [Install] to proceed with the installation.



(7) The screen shown below is displayed when the wizard has finished installing the driver. Click the [Finish] button to close the “Device Driver Installation Wizard”.

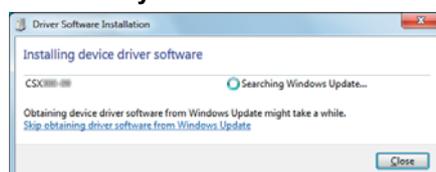


(8) Turn on the scanner, and then the scanner connects to the computer.

(9) The following message appears on the taskbar when you connects to the scanner. Wait for the driver installation is finished. (It may take several minutes.)



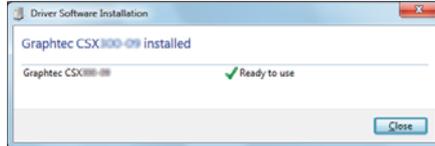
- If the computer is not connected to the network, the installation finishes immediately, and the message from the next step [10] appears on the screen.
- If the computer is connected to the network, this message may disappear during the installation. In this case, wait until the message from the next step [10] appears on the screen.
- The following screen appears when you click the message. In this case, by selecting the "Skip obtaining driver software from Windows Update" link the installation can be finalized early.



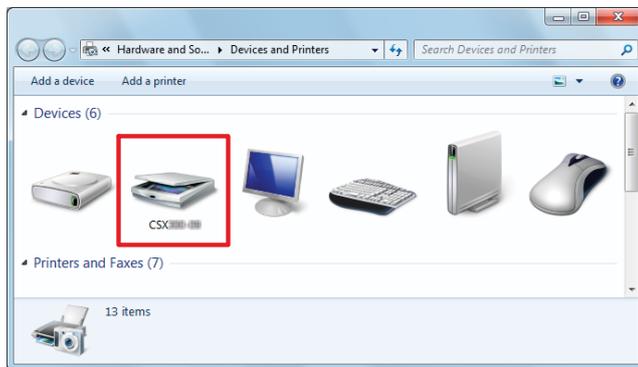
(10) The following message appears on the taskbar when the driver installation is finished.



After clicking the taskbar message in step [9] the following screen appears when the driver installation is finished.



(11) Select "Devices and Printers" using the [Start] menu on the Windows desktop to display the screen shown below. Check that connected scanner is displayed here.



The installation of driver software is complete.

For Windows Vista

- (1) Turn on the computer. (Do not connect the scanner yet.)
- (2) Insert the "IMAGE SCANNER USER GUIDE CD-ROM," which came with the scanner, into the CD-ROM drive.

AutoPlay screen will appear shortly. Select [Run MultiSetup.exe] from there.

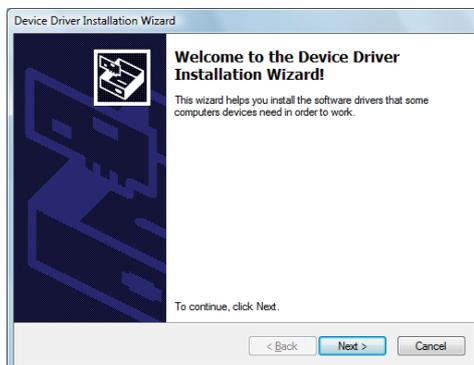


- (3) The User Account Control screen is displayed. Click [Continue] to proceed with the installation.
- (4) The "Setup menu" screen starts automatically. Next, select the "Pre-install the scanner driver" button.

If the "Setup menu" screen does not start, open Windows Explorer, and double-click on "MultiSetup.exe" within the CD-ROM folder.



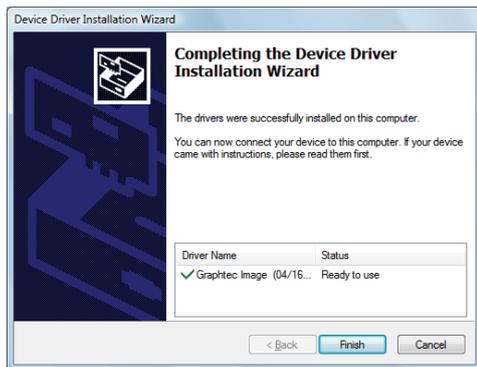
- (5) The screen shown below appears. Click the [Next] button.



(6) The screen shown below is displayed. Click [Install] to proceed with the installation.



(7) The screen shown below is displayed when the wizard has finished installing the driver. Click the [Finish] button to close the "Device Driver Installation Wizard".

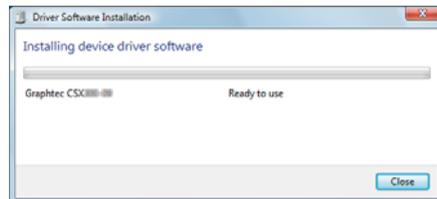


(8) Turn on the scanner, and then the scanner connects to the computer.

(9) The following message appears on the taskbar when you connects to the scanner. Wait for the driver installation is finished.



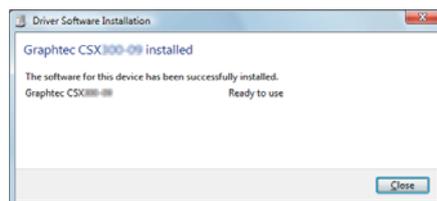
The following screen appears when you click the message.



(10) The following message appears on the taskbar when the driver installation is finished.

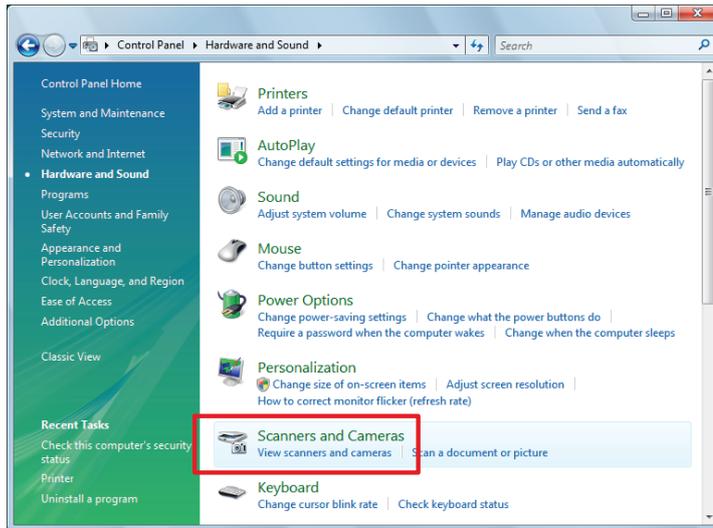


After clicking the taskbar message in step [9] the following screen appears when the driver installation is finished.

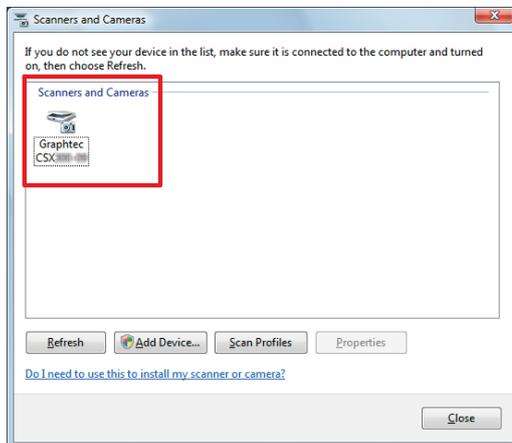


(11) Launch the Control Panel using the [Start] menu on the Windows desktop.

(12) Click "Hardware and Sound" to display the screen shown below.



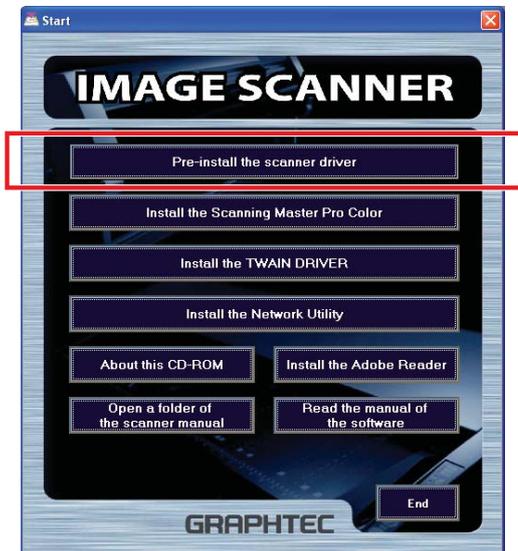
(13) Click "Scanners and Cameras" to display the screen shown below. Check that connected scanner is displayed here.



The installation of driver software is complete.

For Windows XP

- (1) Turn on the computer. (Do not connect the scanner yet.)
- (2) Insert the "IMAGE SCANNER USER GUIDE CD-ROM," which came with the scanner, into the CD-ROM drive.
- (3) The "Setup menu" screen starts automatically after a while. Next, select the "Pre-install the scanner driver" button. If the "Setup menu" screen does not start, open Windows Explorer, and double-click on "MultiSetup.exe" within the CD-ROM folder.



- (4) The screen shown below appears. Click the [Next] button.



- (5) The screen shown below is displayed. Read the explanation and make sure that you understand the contents. To continue the installation, click [Continue Anyway].



- (6) The screen shown below is displayed when the wizard has finished installing the driver. Click the [Finish] button to close the “Device Driver Installation Wizard”.



- (7) Turn on the scanner, and then the scanner connects to the computer.
(8) When the following screen appears, Select the option “No, not this time” and then click [Next].
(When Service Pack 2 or later has been installed, the following screen may appears.)



- (9) The following screen appears. Select the option “Install the software automatically (Recommended).” and then click [Next].



- (10) The screen shown below is displayed. Read the explanation and make sure that you understand the contents. To continue the installation, click [Continue Anyway].

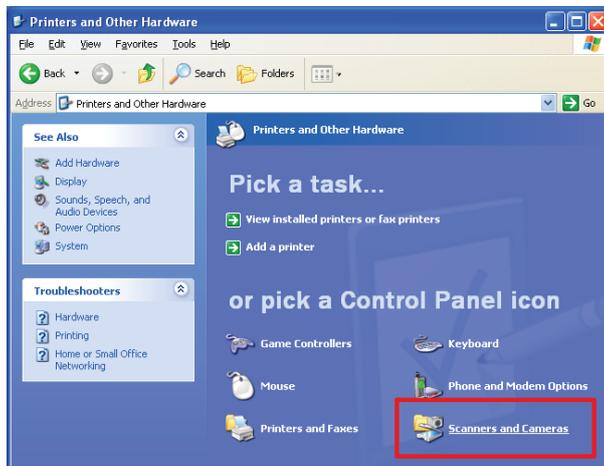


- (11) The screen shown below is displayed when the wizard has finished installing the driver. Click the [Finish] button to close the “Welcome to the Found New Hardware” wizard.

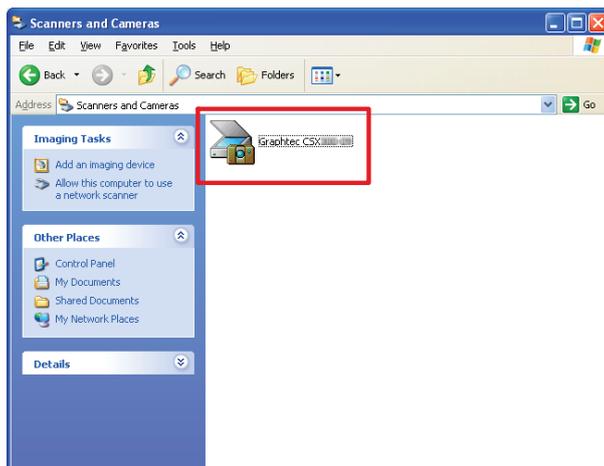


- (12) Launch the Control Panel using the [Start] menu on the Windows desktop.

- (13) The screen shown below is displayed when you click on the “Printers and Other Hardware” icon.



- (14) The screen shown below is displayed when you click on the “Scanners and Cameras” icon. Check that connected scanner is displayed here.



The installation of driver software is complete.

2.6 Installing the Scanning Master Pro Color Application

Scanning Master Pro Color "OPS115" is a software application for using a Graphtec scanner to scan image data.

Operating environment

Windows XP Professional/Home Edition
Windows Vista Ultimate/Business/Home Premium/Home Basic
Windows 7 Ultimate/Enterprise/Professional/Home Premium

Installation procedure

The following steps are explained using the Windows 7 screens.

- (1) Start up Windows 7.
- (2) Insert the attached "IMAGE SCANNER USER GUIDE CD-ROM" into the CD-ROM drive. AutoPlay screen will appear shortly. Select [Run MultiSetup.exe] from there.

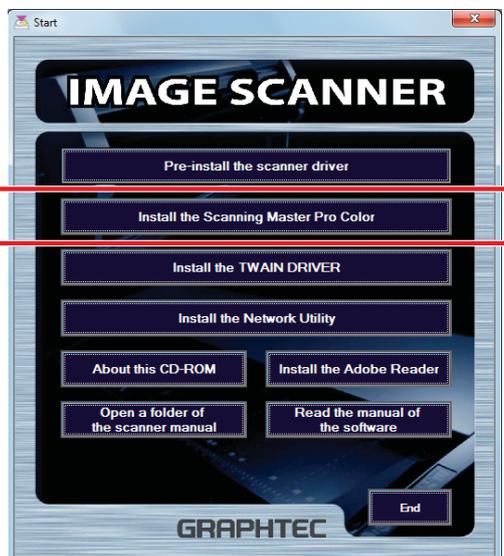


- (3) Click "Yes" on the User Account Control screen, which appears, to continue the installation.



- (4) The "Setup menu" screen starts automatically. Next, click the "Install the Scanning Master Pro Color" button.

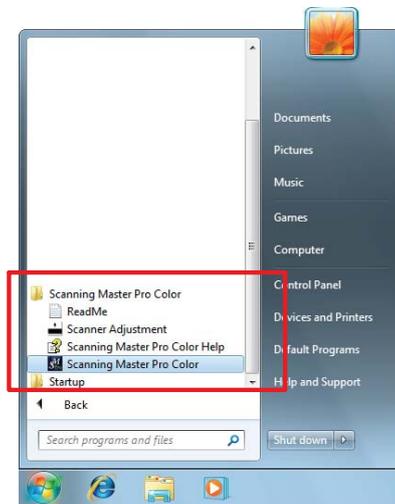
If the "Setup menu" screen does not start, open Windows Explorer, and double-click on "MultiSetup.exe" within the CD-ROM folder.



(5) The Scanning Master Pro Color 'OPS115' set-up program will start shortly.

From this point on, follow the set-up program's instructions to install the "Scanning Master Pro Color 'OPS115'" application.

If the application has been properly installed, "Scanning Master Pro Color" will be added to the [Start] menu on the Windows desktop.



2.7 Network Connection (CSX550-09 only)



Caution

Both USB and network connection cannot be executed simultaneously. Please refrain from connecting the USB cable and the network cable to a single computer at the same time.



- The procedure outlined below is based on the requirement that you are logged on to Windows with administrator rights. Consult your Windows manual and Windows Help for more information.
- Before executing Graphtec Network Utility, please be sure to first install the scanner driver software. (see Section 2.5, “Installing the Scanner Driver Software”)

Installation procedure

The following procedure assumes that you are using the Scanner connected via a Network interface as part of your system.

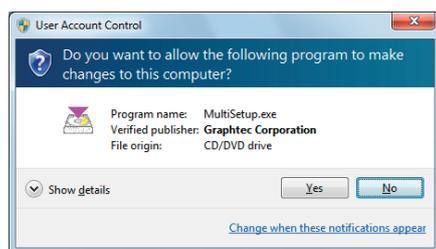
The windows shown are those for Windows 7.

- (1) Turn on the Scanner and computer power, and connect to a Network interface.
- (2) Insert the "IMAGE SCANNER USER GUIDE CD-ROM," which came with the scanner, into the CD-ROM drive.

AutoPlay screen will appear shortly. Select [Run MultiSetup.exe] from there.



- (3) The User Account Control screen is displayed. Click [Yes] to proceed with the installation.



- (4) The "Setup menu" screen starts automatically. Next, click the "Install the Network Utility" button. If the "Setup menu" screen does not start, open Windows Explorer, and double-click on "MultiSetup.exe" within the CD-ROM folder.



- (5) When the following screen is displayed, click [Setup].

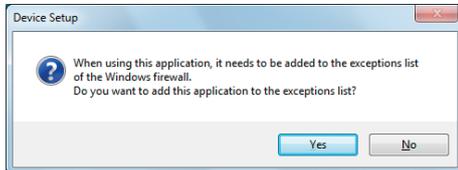


Device Setup Settings

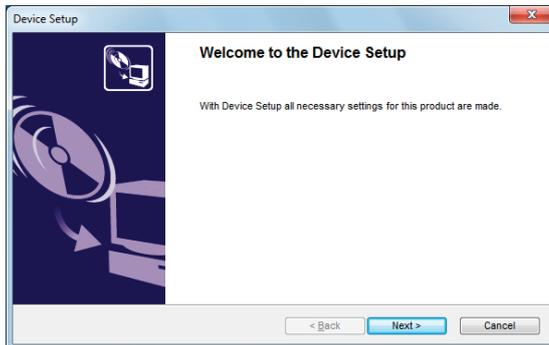
(6) When the following screen is displayed, click [Device Setup].



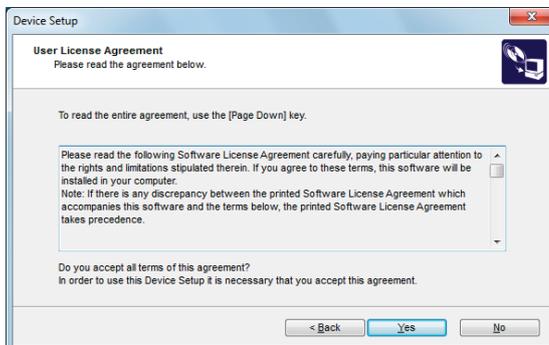
Note: For Windows 7, Windows Vista, and Windows XP Service Pack2, the following “Firewall Exception List Registration Confirmation” will be displayed. Click [Yes].



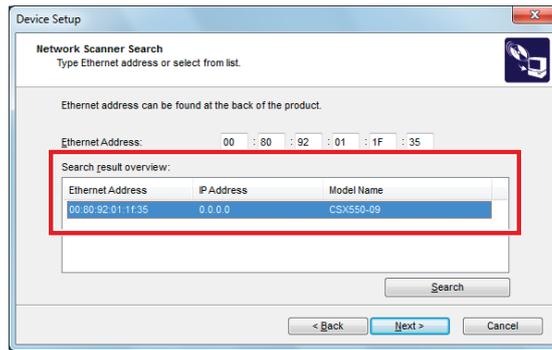
(7) The screen shown below appears. Click [Next].



(8) When the following screen is displayed, please read the “User License Agreement”, and click [Yes].



- (9) When the following screen appears, select the scanner displayed on the “Search result overview”, and click [Next].



Note: The Ethernet address cannot be found at the back of the product.

Note: If the scanner is not displayed, confirm that the scanner is connected to your computer, and click [Search].

Caution

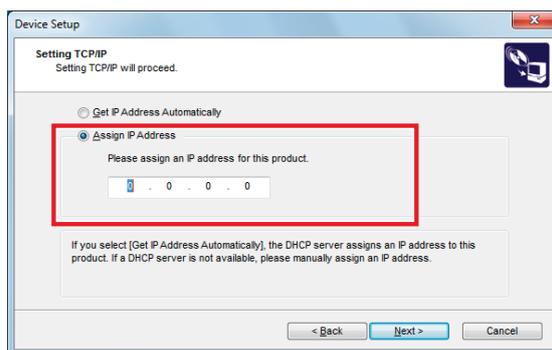
- If the IP address has been set to a setting other than the initial setting (0.0.0.0), the IP address of the computer used to make the setting must belong to the same subnet as the IP address that was set for the scanner.
- This setting cannot be made if there is an existing IP address that is the same as that of the scanner.
- When the setting will be performed from a location that a router is used to access, depending on the type of router used, there may be locations that cannot be searched. In this case, make the setting within the same segment.

- (10) This will calibrate your IP address settings.

Note: Depending on the environment, the screen displayed may vary.

- In case the following screen is displayed:

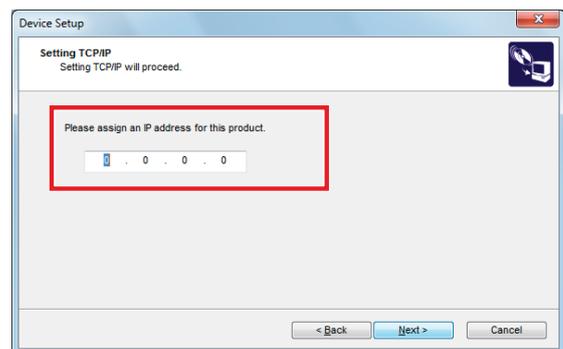
Select “Assign IP Address”, and then click the [Next] button after entering your desired IP address.



Note: If you don't know your IP address, please ask your network manager. If there exist 2 or more of the same IP address on one network, the network may be damaged.

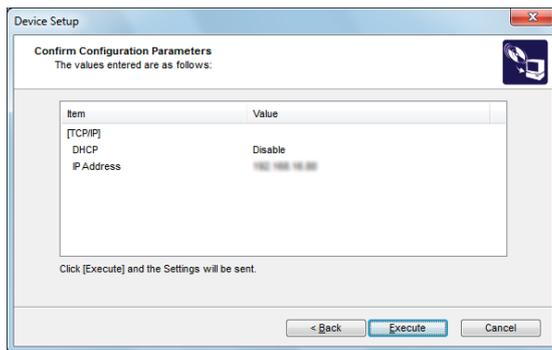
- In case the following screen is displayed:

Specify your desired IP address, and then click [Next].

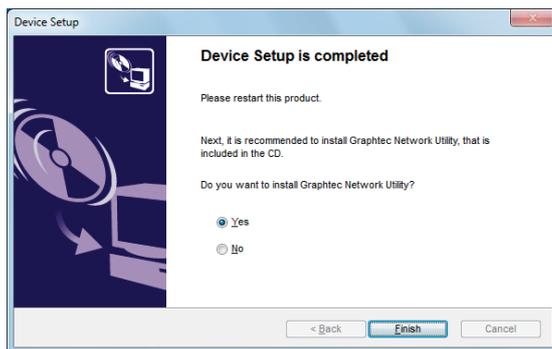


Note: If you don't know your IP address, please ask your network manager. If there exist 2 or more of the same IP address on one network, the network may be damaged.

(11) The screen shown below appears. Check the settings and click [Execute].



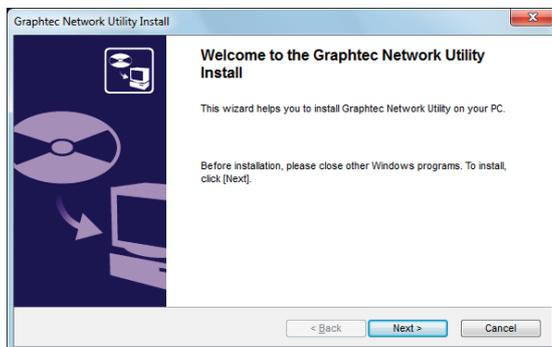
(12) The screen shown below appears. Select "Yes" and click [Finish].



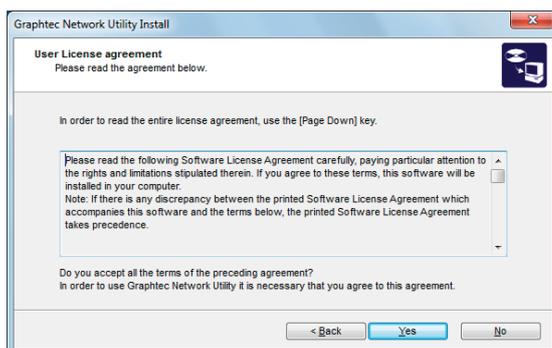
This completes the Device Setup operation.

Installing the Graphtec Network Utility

(13) The screen shown below appears. Click the [Next] button.



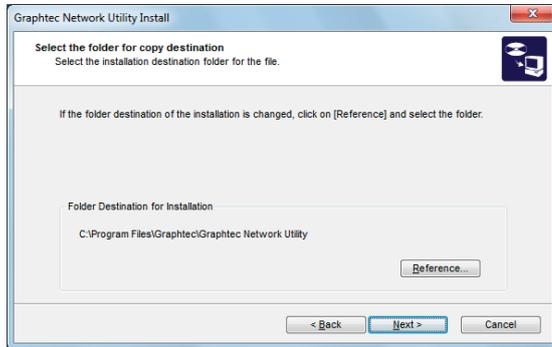
(14) The screen shown below appears. Check the contents of the "User License Agreement" and click [Yes].



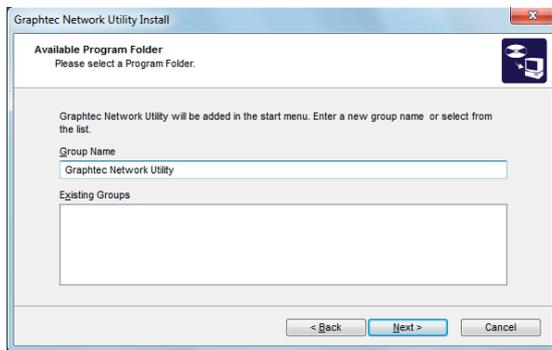
(15) The following window appears.

Select the destination folder for installation. To specify a folder, click [Reference] and then select a folder.

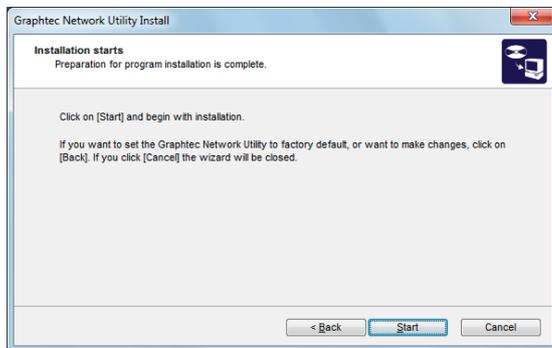
Note: The default destination folder is C:\Program Files\Graphtec\Graphtec Network Utility. Click [Next].



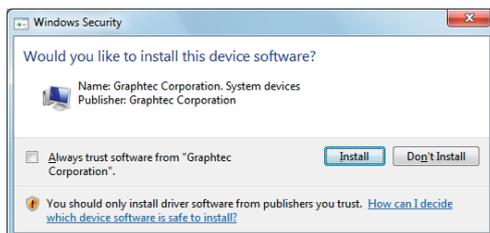
(16) The screen shown below appears. Set the name of the program folder and click [Next].



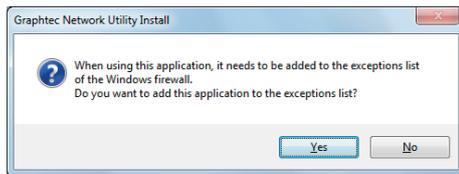
(17) Click [Start] to start the installation procedure.



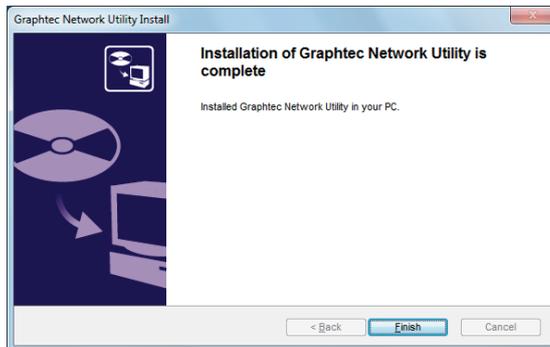
Note: In Windows 7 and Windows Vista, the “Windows Security” screen below appears. Click [Install].



Note: If you are using Windows 7, Windows Vista or Windows XP Service Pack 2, the following confirmation screen asking you whether you want to add this application to the Windows firewall exception list appears. Click [Yes].



(18) When installation has been completed, click [Finish].



This completes the setup operation of the Graphtec Network Utility.

Setting up the Graphtec Network Utility



Before executing Graphtec Network Utility, please be sure to first install the scanner driver software. (see Section 2.5, “Installing the Scanner Driver Software”)

(1) Set up the Graphtec Network Utility.

Launch the “Graphtec Network Utility” from the [Start] menu.

(2) Register the server to connect to.

When launching the Graphtec Network Utility, the screen for server registration appears.

Click [Yes] to perform registration of the server.

Note: Even if [No] is selected, you can still proceed to the registration window by clicking the [Register].



In the Graphtec Network Utility, server refers to the scanner.

(3) The screen below appears. Click [Search].



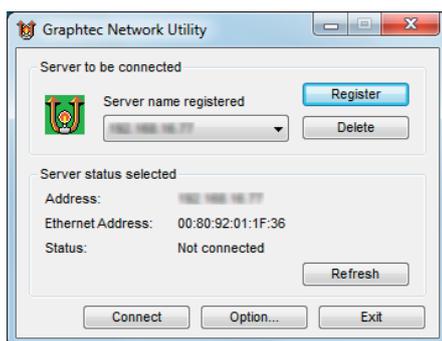
(4) Select the connected server, and then click [OK].



(5) Click [Register] to connect from the Graphtec Network Utility.



(6) Click the [Connect] button.



Note: The install screen for the Scanner Driver Software appears. (see Section 2.5, “Installing the Scanner Driver Software”)

Windows 7 Step 9 of “When using Windows 7”

Windows Vista Step 9 of “When using Windows Vista”

Windows XP Step 8 of “When using Windows XP”



- When using the Scanner connected to a Network interface, be sure to launch the Graphtec Network Utility and click the [Connect] button. Furthermore, when you have finished using the scanner, click the [Disconnect] button to put the scanner in a status that enables it to be used with other computers.

- If the [Connect] button is displayed in gray, the scanner is being used with another computer. Please connect the scanner when the [Connect] button display returns to black indication.
- When the scanner is connected to the computer and no commands are received, it will be disconnected after approximately 10 minutes.

**Caution**

- If the scanner is disconnected with the Scan window left open, the scanner will remain in the scanning status, and cannot be used other computers. In this case, the scanner must be turned off and then on again.
 - The scanner's network interface sleeps when the scanner is in energy-saving mode. When connecting the scanner, bring it out of the energy-saving mode.
-

How to initialize the settings

The following methods will allow you to initialize the network environment for the scanner.

- Initialize with the scanner
- Initialize with the Network Utility

Once initialized, the IP address will become (0.0.0.0).

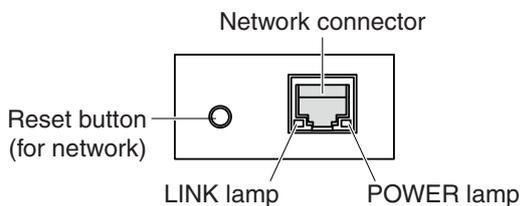
After initialization, insert the "IMAGE SCANNER USER GUIDE CD-ROM", which came with the scanner, into the CD-ROM drive.

Go to "Install the Network Utility" and use "Setup" to execute the "Device Setup".

(Refer to the "Setup procedure" mentioned before.)

Initialize with the scanner

Initialize the scanner if you change the environment of the network to which the scanner is connected.



Remove the Network Cable, and turn the scanner OFF.

Turn the scanner ON while holding down the Reset Button. (the POWER lamp on the right will light up)

Keep holding down the Reset Button until the LINK lamp on the left lights up.

When the LINK lamp lights up, let go of the Reset Button.

Turn the main power on the scanner OFF (on the O side), and switch the power ON after at least 5 seconds (on the I side).

This will initialize the network environment.

Initialize with the Network Utility

Initialize the settings when changing the Network environment for the scanner.

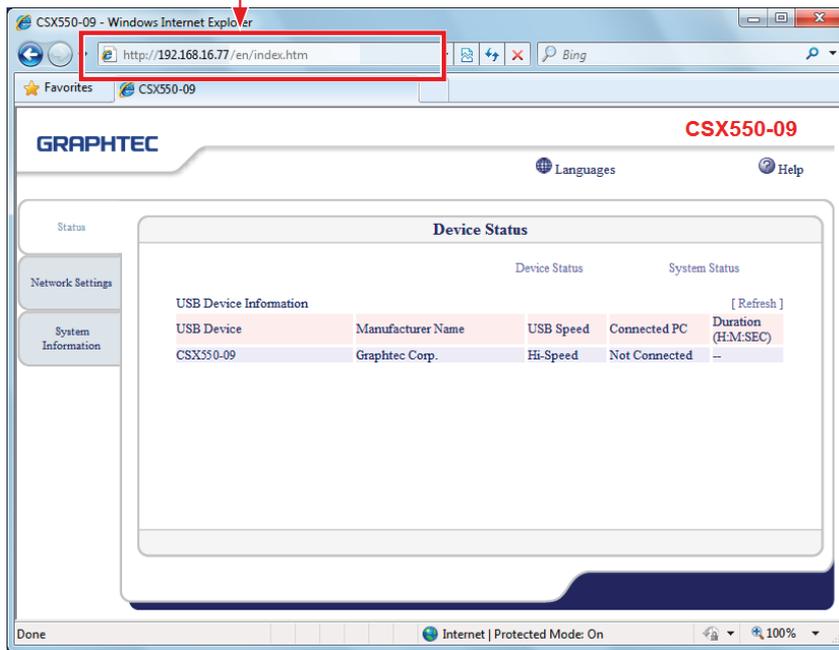


Set the browser's proxy server to off when performing the initialization settings.

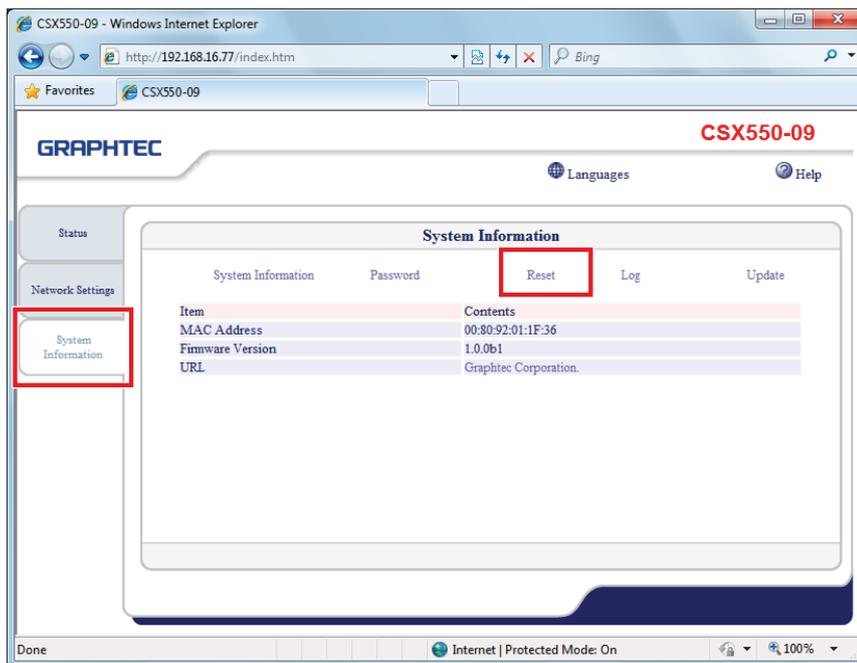
- (1) Launch Internet Explorer.

(2) Enter “http://scanner IP address/en/index.htm” in the Address bar at the top of the screen.

Example: http://192.168.16.77/en/index.htm



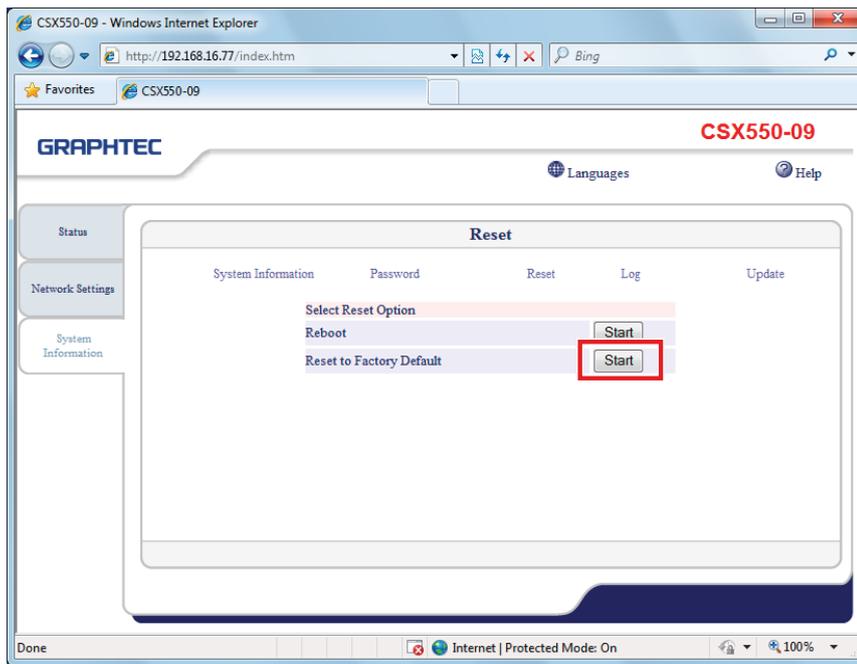
(3) Select the “System Information” tab and click [Reset].



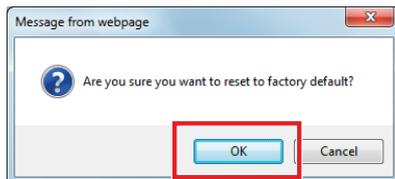
(4) Enter “root” in the User name box and then click [OK].
(User name: root; Password: blank box)



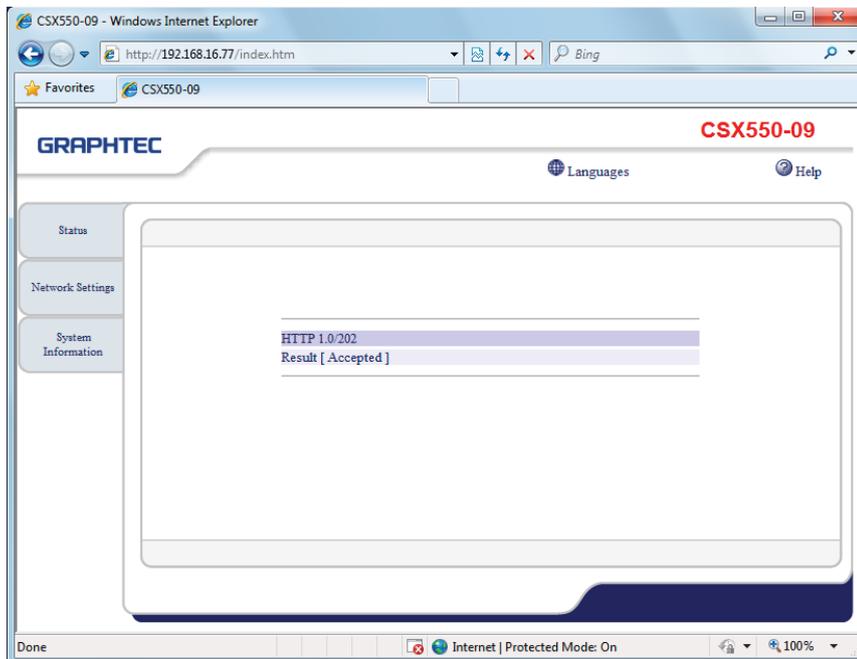
(5) Click the [Start] button for “Reset to Factory Default”.



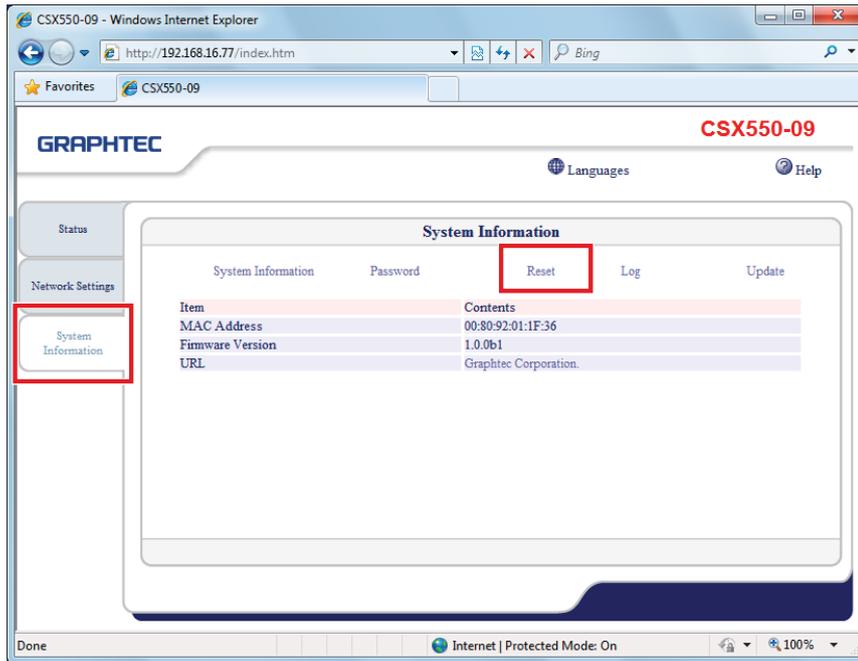
(6) “Are you sure you want to reset to factory default?” appears.
Click [OK].



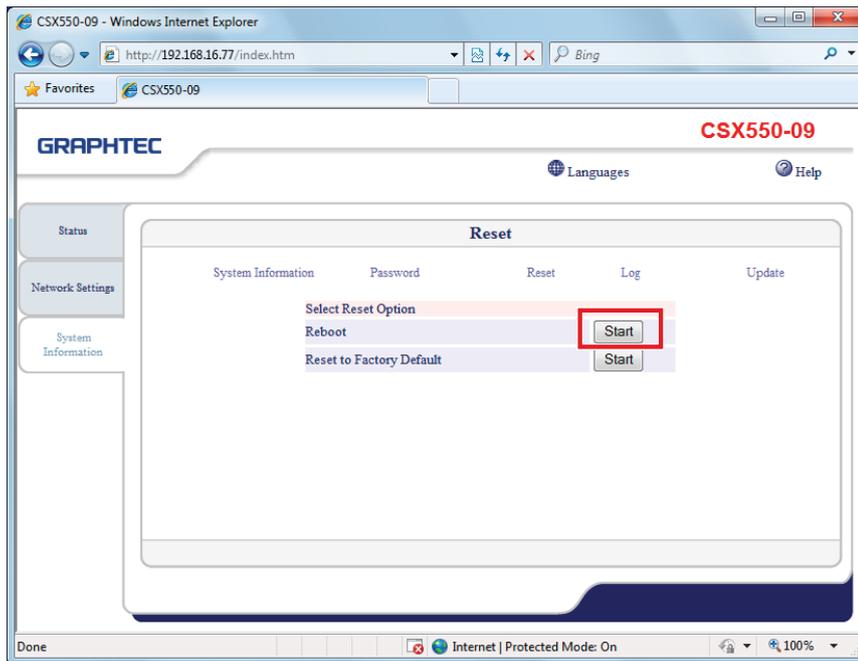
(7) The following window is displayed after the setting has been made.



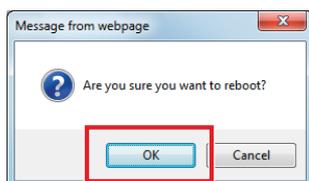
- (8) Reboot the Network Board.
Select the “System Information” tab and click [Reset].



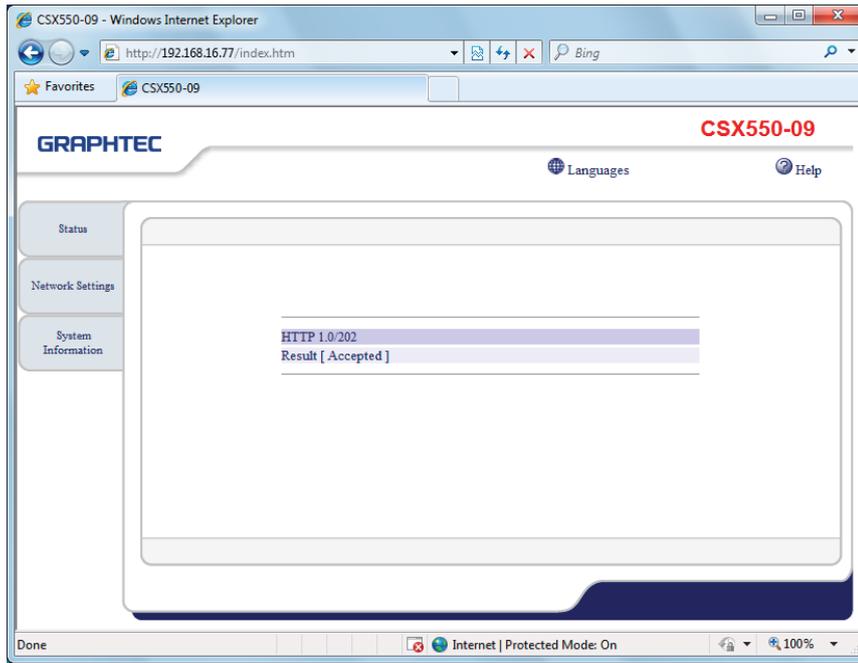
- (9) Click the [Start] button for “Reboot”.



- (10) “Are you sure you want to reboot?” appears.
Click [OK].



(11) After the settings, the screen below appears.



(12) This completes the initialization of the Scanner Network.

CHAPTER 3 LOADING A DOCUMENT

3.1 Compatible Document Types

Because the scanner scans a document while feeding it, the document types that it can scan are subject to the following restrictions.

Compatible Media Widths for Scanning

Documents with a maximum width of 965 mm

| Size | ANSI Architectural | Size | ANSI Engineering |
|------|--------------------|------|------------------|
| A | 9 x 12 in | A | 8.5 x 11 in |
| B | 12 x 18 in | B | 11 x 17 in |
| C | 18 x 24 in | C | 17 x 22 in |
| D | 24 x 36 in | D | 22 x 34 in |
| E1 | 30 x 42 in | E | 34 x 44 in |
| E | 36 x 48 in | | |

| Size | DIN |
|------|------------------|
| A4 | 9.44 x 12.99 in |
| A3 | 12.99 x 17.71 in |
| A2 | 17.71 x 24.60 in |
| A1 | 24.60 x 34.64 in |
| A0 | 34.64 x 48.42 in |

| Size | JIS (ISO) | Size | JIS (ISO) |
|------|---------------|------|---------------|
| A4 | 210 x 297 mm | B4 | 257 x 364 mm |
| A3 | 297 x 420 mm | B3 | 364 x 515 mm |
| A2 | 420 x 594 mm | B2 | 515 x 728 mm |
| A1 | 594 x 841 mm | B1 | 728 x 1030 mm |
| A0 | 841 x 1189 mm | | |

Compatible Media Lengths for Scanning

Length can be set up to 999.99999 m.

Long documents might be unreadable depending on the connected computer's environment.

Compatible Document Thicknesses for Scanning

The CSX510-09/CSX530-09/CSX550-09 cannot scan a document that is thicker than 1.6 mm.

When using the carrier sheet, ensure that the combined thickness of both the document and carrier sheet does not exceed 1.6 mm.

Moreover, documents of an uneven thickness cannot be scanned.

Note: The carrier sheet alone is 0.2 mm thick.

Compatible Media Grades for Scanning

Media Grades

- The scanning precision is guaranteed for the special chart (Mylar) used in the test (see APPENDIX B, "SPECIFICATIONS").
- The compatible media types are listed below.
 - ◆ High-grade paper : 60 g/m²
 - ◆ Tracing paper : 50 to 55 g/m²
 - ◆ Mylar : 50 μm
 - ◆ Copy paper
 - ◆ Diazo photo-sensitive paper

Be sure to use the carrier sheet when scanning a document where the ink or toner comes off when it is rubbed. If the carrier sheet is not used, there is a risk of the document feed path becoming stained, and causing subsequent documents to become stained as well.

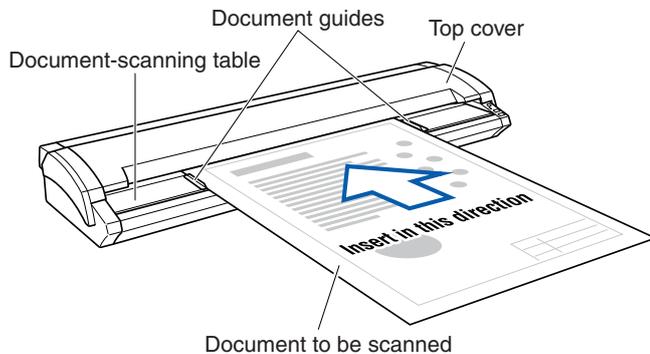
3.2 Loading a Document

How to use the document guides

Insert the document (the surface to be scanned) face up into the scanner until the top edge of the document contacts the feed rollers. At this time, make sure that the document is straight and that it is centered in the scanner.

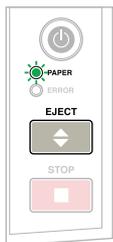
- (1) With the top cover in the closed status, turn on the scanner's power supply.
- (2) The document guides are attached to the document-scanning table via magnets. Place them at the edges of the document in alignment with the document width.
- (3) Place the document between the document guides, and then insert the document into the gap between the top cover and the document-scanning table, making sure that it is straight.
- (4) When the preset delay time specified in the driver software has elapsed, the rollers start turning to automatically feed the document to the position to start scanning. The document is now loaded. (Manual loading: OFF)
- (5) Remove the document guides after you have loaded the document in order to ensure that the document does not get damaged if it is fed at an angle.

Remove the document guides after the document has been loaded correctly. If the document guides are not removed, the document might get damaged when it is being fed.



There are two document setting modes available.

(For more information, refer to "Section 3 Scanning Settings" of the "Scanning Master Pro Color 'OPS115'" Instructions Manual (PDF))



- The rollers start turning at a preset delay time after the document has been inserted so that they automatically feed the document to the position to start scanning. (Manual loading: OFF)
- The rollers start turning when the [EJECT] key on the control panel is pressed after a document is inserted so that they automatically feed the document to the position to start scanning. (Manual loading: ON)

If you want to reload the document, press the [EJECT] key to eject the document. Reload the ejected document.

When the document has been loaded, the [PAPER] LED (green) lights.



If the PAPER LED does not light after the document feed operation has stopped, press the EJECT key, and the document gets reset without being ejected and the PAPER LED lights.



Caution

- If the document is inserted at an angle, the image may be scanned in at an angle or a scanning error may occur. Make sure that the document is aligned with the document guides when it is inserted.
- The delay time (automatic feed time) after the scanner has been turned on is set to three seconds.

- Load the document in the scanner with the surface to be scanned face up.
 - Do not place anything other than the document to be scanned on the documentscanning table. If you do so, the scanner rollers may start rotating, which is extremely dangerous.
 - The document may not be fed in correctly if it is curled. The carrier sheet should be used for curled documents (see Section 3.5, “Using the Carrier Sheet” for details).
 - Load the document in the center of the scanner, as the document may be fed in at an angle and not scanned correctly if it is significantly off-center.
 - Load the document in the center of the scanner. If it is significantly off-center, the document may shift and may not be scanned correctly.
-

3.3 Handling Documents According to their Material and Thickness

The following problems may occur, depending on the thickness and surface condition of the document being scanned.

- The document cannot be loaded.
- Scanning of the document stops half-way through.
- The document slips (resulting in displaced images).
- The end of the document is not scanned.

Such problems may be avoided by taking the following corrective measures.

<Adjust the scanning speed>

Adjust the scan speed using the table below as a guide and following the steps.

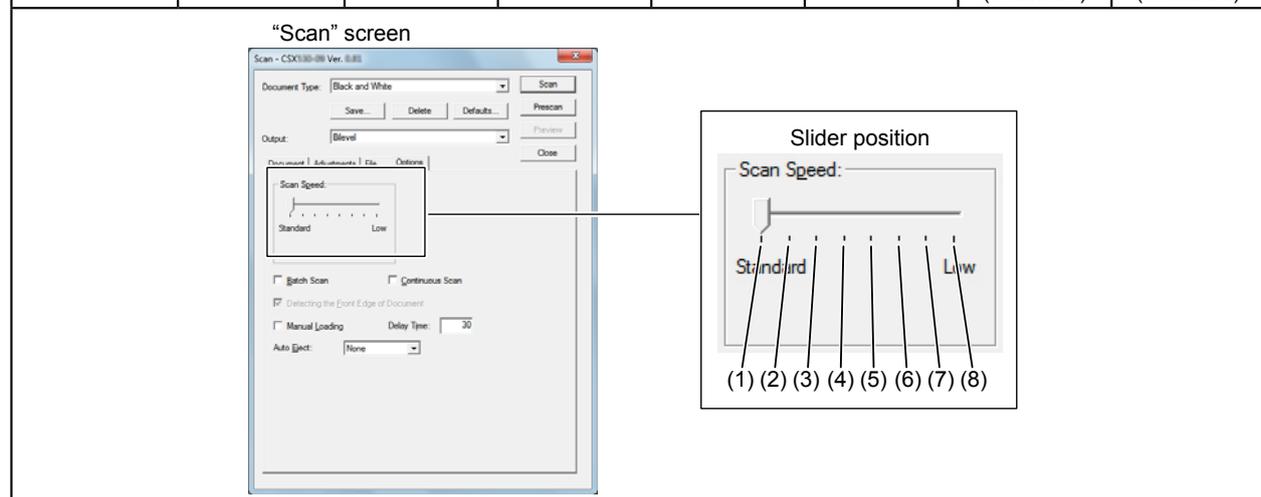
- (1) Start up the “Scanning Master Pro Color (OPS115)” software that is provided with your scanner, and then display the [Scan] screen.
- (2) Select the [Document] tab to confirm the set "Resolution (DPI)."
- (3) Next, select the [Options] tab, and then move the “Scan Speed” slider to the confirmed resolution position.

"Scan Speed" settings guide (set in the "Scanning Master Pro Color 'OPS115'")

Note: When “Quality” is set to “High quality” and “Output” is set to “Grayscale” in “Scanning Master Pro Color ‘OPS115’”

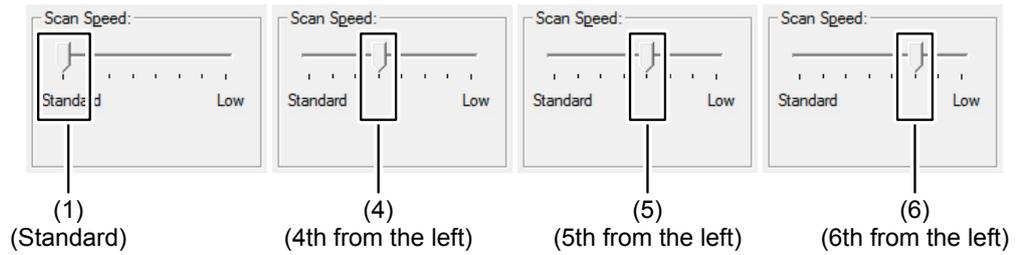
These values are suggested as a guideline only. The actual values will vary according to the type of document and its condition.

| Model | Document Thickness (mm) | Resolution (dpi) | | | | | |
|-----------|-------------------------|----------------------------------|---|---|---|---|---|
| | | 200 | 300 | 400 | 600 | 800 | 1200 |
| CSX510-09 | 0.65 to 0.8 | Position of the below figure (2) | Position of the below figure (1) (Standard) |
| | 0.8 to 1.6 | Position of the below figure (4) | Position of the below figure (3) | Position of the below figure (4) | Position of the below figure (1) (Standard) | Position of the below figure (1) (Standard) | Position of the below figure (1) (Standard) |
| CSX530-09 | 0.65 to 0.8 | Position of the below figure (5) | Position of the below figure (5) | Position of the below figure (4) | Position of the below figure (5) | Position of the below figure (1) (Standard) | Position of the below figure (1) (Standard) |
| | 0.8 to 1.6 | Position of the below figure (7) | Position of the below figure (6) | Position of the below figure (6) | Position of the below figure (5) | Position of the below figure (6) | Position of the below figure (1) (Standard) |
| CSX550-09 | 0.65 to 0.8 | Position of the below figure (6) | Position of the below figure (6) | Position of the below figure (6) | Position of the below figure (5) | Position of the below figure (1) (Standard) | Position of the below figure (1) (Standard) |
| | 0.8 to 1.6 | Position of the below figure (8) | Position of the below figure (8) | Position of the below figure (8) | Position of the below figure (8) | Position of the below figure (1) (Standard) | Position of the below figure (1) (Standard) |



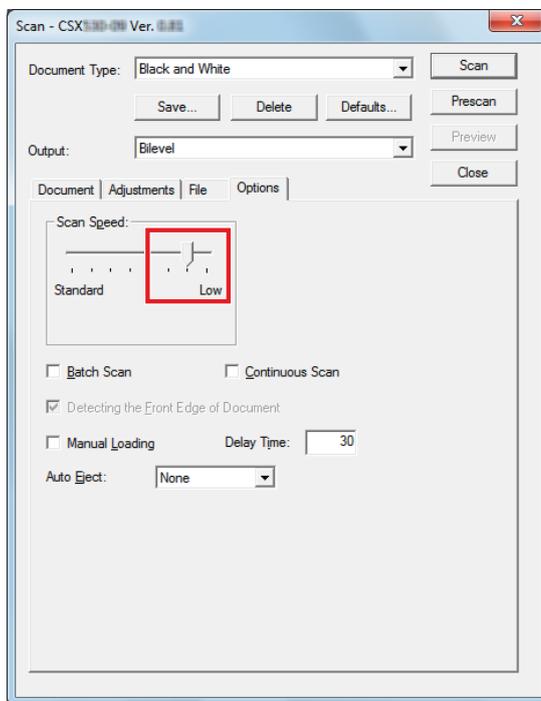


Refer to the examples below regarding the “Scan speed” slider position in “Scanning Master Pro Color ‘OPS115.’”



<Lower the scanning speed>

- (1) Start up the “Scanning Master Pro Color (OPS115)” software that is provided with your scanner, and then display the [Scan] screen.
- (2) Select the [Options] tab, and then move the “Scan Speed” slider to the Low end of the scale.



<Support the document at the front and the back of the scanner>

Place tables or similar objects in front of and behind the scanner to support the document while it is being fed.

3.4 Distance Correction

Corrections to the distance can be achieved using the driver software. The driver software included with your scanner ("Scanning Master Pro Color") enables you to perform distance correction from the menu Tool → Adjust Scanner in order to adjust the scanning accuracy.

The adjustment function must be set up when a scanned drawing needs to approximate the accuracy of the original drawing closely. (This is for making fine adjustments to the accuracy of the scanned drawing to suit the quality of the paper being used.) It is not normally necessary to perform this adjustment.

Adjustment method

Perform the distance correction process according to the type of document to be scanned.

Distance correction can be set in a range of $\pm 1\%$, which remains effective until the scanner's power is turned off.

The practice of distance correction necessitates that you measure a vertical line drawn on the document before following the procedure described below.

- (1) Choose a document that has one or more vertical lines drawn on it and scan it at a resolution of 600 dpi (Portrait (vertical) format).
- (2) Measure the length of the vertical line of the document and classify it as x (distance on the document).
- (3) Measure the length of the same vertical line in the image data using the command to measure the distance between two specified points of relative measurement, and classify it as y (distance after the scan has taken place).
- (4) Click on the Distance Correction button in the Adjust Scanner window to open the Distance Correction window.
- (5) Enter the value "x" (distance on the document) and the value "y" (distance after the scan has taken place) in this window. The values entered here must be within the range of the distance correction.
- (6) Click the OK button to calculate the correction value. The distance will be corrected the next time a document is scanned.

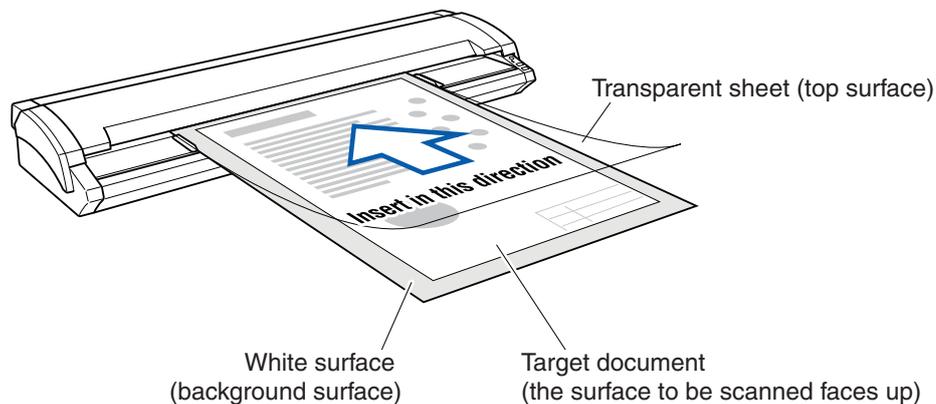
3.5 Using the Carrier Sheet

Use the carrier sheet according to the condition of the document to be scanned.

In the case of scanning the following types of media, always place the document in the carrier sheet before loading it into the scanner.

- To scan a document that is smaller than Letter size or a document of non-standard size
- To scan a document that is as limp as or limper than a newspaper
- To scan a document that tears or becomes damaged easily
- To scan a document that is considerably damaged
- To scan a document that is badly creased
- To scan a curled document
- To scan a transparent or translucent document
- To scan a document to which other pieces of paper have been attached
- When the target document cannot be properly advanced to the initial position of scanning (because the target document is not flat, or otherwise hard to load in the scanner)

As shown in the figure below, place the document in the carrier sheet with the document's surface to be scanned face up (against the transparent top sheet). For scanning, load the carrier sheet into the scanner with the document's target surface (the transparent top sheet) face up.



Checkpoint

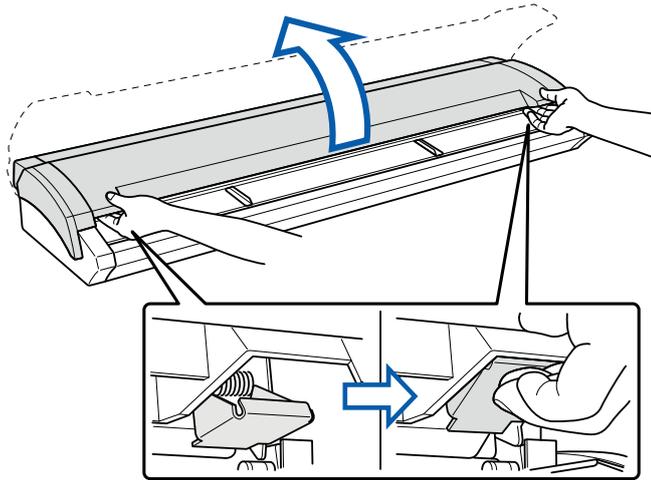
- When handling the carrier sheet, be very careful not to scratch or otherwise damage it.
- If you use the carrier sheet when scanning color documents, the colors may shift slightly in some cases.
- In the case of CSX510-09 the carrier sheet is an optional item.

CHAPTER 4 DAILY MAINTENANCE

4.1 Opening and Closing the Top Cover

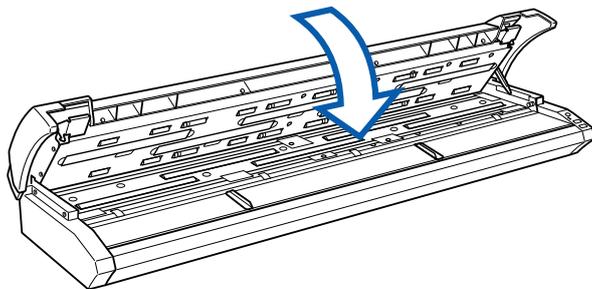
Opening the top cover

- (1) Turn off the scanner.
- (2) Using both hands, push up the left and right open levers on the top cover to unlock them. While still holding on to the levers, open the cover fully (approximately 47 degrees).
- (3) When the top cover is fully open, the fixing stay operates to hold the top cover in place.



Closing the top cover

- (1) Press the open cover down gently with both hands to close it.
- (2) Check that the left and right open levers are locked into position.



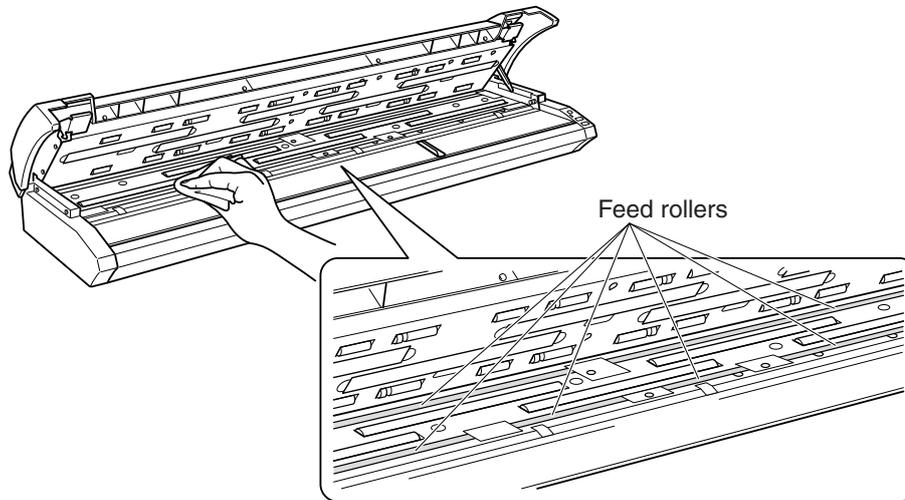
If the levers are not locked correctly, the ERROR LED flashes and a scanning operation cannot be performed.



- Take care not to get your fingers caught when opening or closing the cover.
- When closing the top cover, please be careful not to pinch the document guides.

4.2 Cleaning the Feed Rollers

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1, "Opening and Closing the Top Cover".
- (3) While rotating the feed rollers manually, wipe them clean using a soft cloth that has been moistened with water or a neutral detergent (diluted with water) and firmly wrung out.

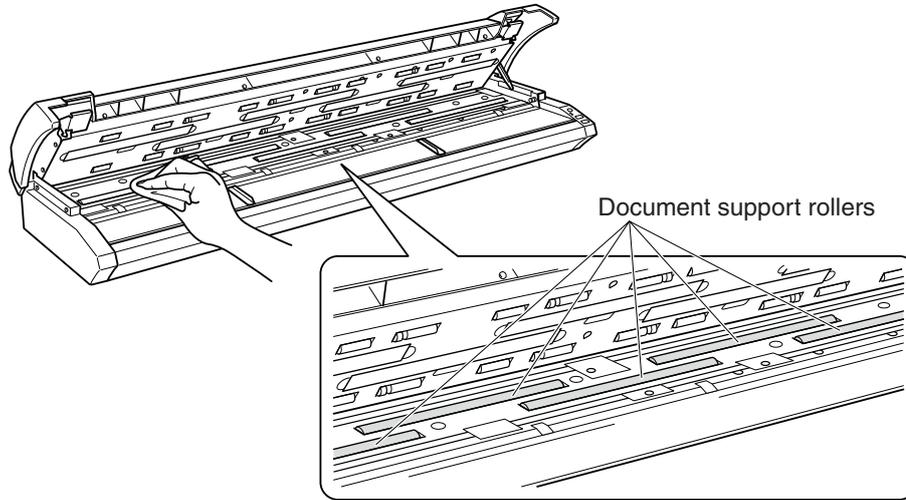


- (4) Wipe the feed rollers once again using a soft, dry cloth to remove all the moisture.
- (5) Close the top cover as described in Section 4.1, "Opening and Closing the Top Cover".

-
- ⚠ Caution**
- Take care not to get your fingers caught in the top cover.
 - Only perform this action when the scanner is turned off.
 - Please refrain from inserting cloth, etc. into the openings.
-

4.3 Cleaning the Document support Rollers

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1, "Opening and Closing the Top Cover".
- (3) While rotating the document support rollers manually, wipe them clean using a soft cloth that has been moistened with water or a neutral detergent (diluted with water) and firmly wrung out.



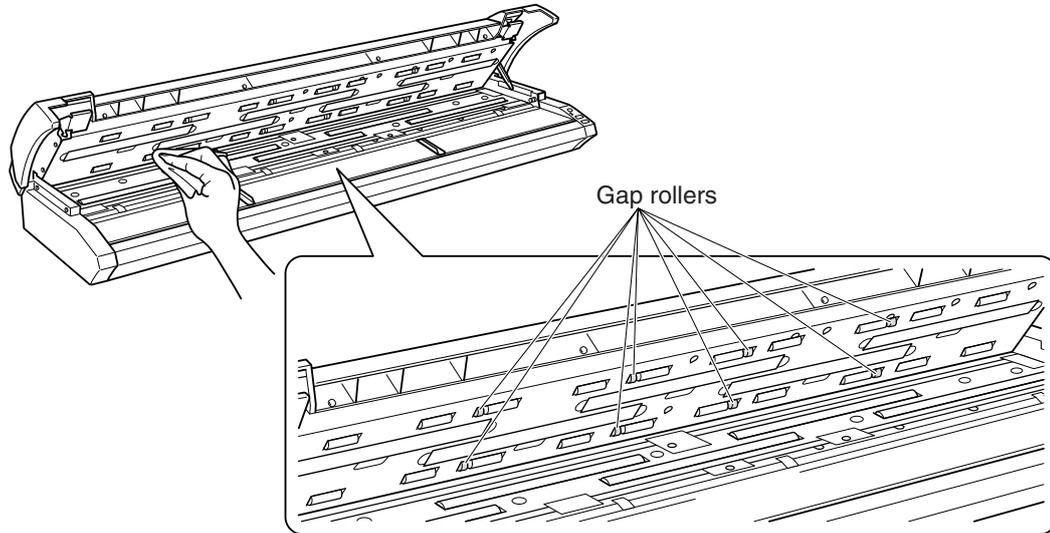
- (4) Wipe the document support rollers once again using a soft, dry cloth to remove all the moisture.
- (5) Close the top cover as described in Section 4.1, "Opening and Closing the Top Cover".

Caution

- Take care not to get your fingers caught in the top cover.
 - Scanning may be affected if the document support rollers becomes scratched or dirty.
 - Only perform this action when the scanner is turned off.
 - Please refrain from inserting cloth, etc. into the openings.
-

4.4 Cleaning the Gap Rollers

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1, "Opening and Closing the Top Cover".
- (3) While rotating the gap rollers manually, wipe them clean using a soft cloth that has been moistened with water or a neutral detergent (diluted with water) and firmly wrung out.

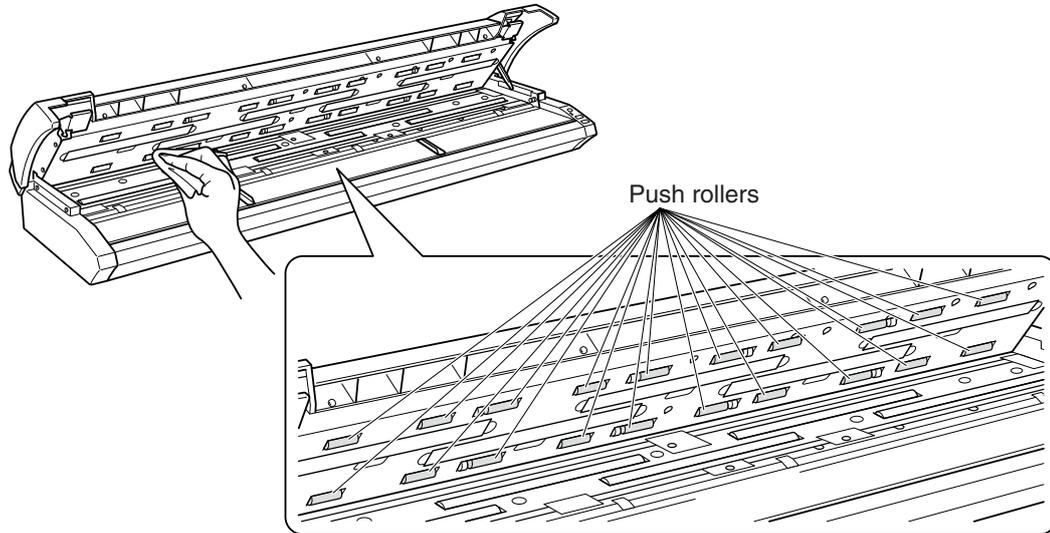


- (4) Wipe the gap rollers once again using a soft, dry cloth to remove all the moisture.
- (5) Close the top cover as described in Section 4.1, "Opening and Closing the Top Cover".

-
- ⚠ Caution**
- Take care not to get your fingers caught in the top cover.
 - Only perform this action when the scanner is turned off.
 - Please refrain from inserting cloth, etc. into the openings.
-

4.5 Cleaning the Push Rollers

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1, "Opening and Closing the Top Cover".
- (3) While rotating the push rollers manually, wipe them clean using a soft cloth that has been moistened with water or a neutral detergent (diluted with water) and firmly wrung out.



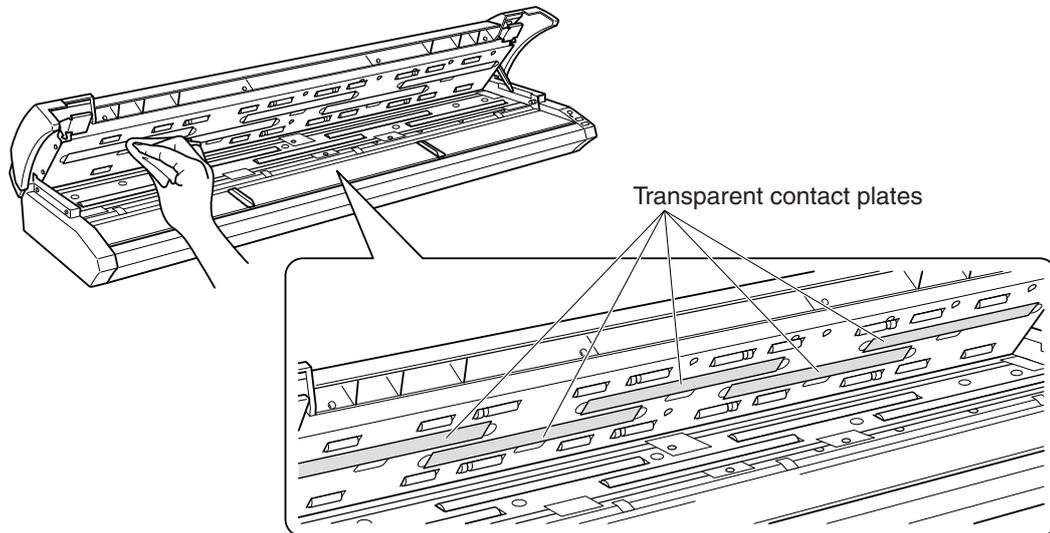
- (4) Wipe the push rollers once again using a soft, dry cloth to remove all the moisture.
- (5) Close the top cover as described in Section 4.1, "Opening and Closing the Top Cover".

-
- Caution**
- Take care not to get your fingers caught in the top cover.
 - Only perform this action when the scanner is turned off.
 - Please refrain from inserting cloth, etc. into the openings.
-

4.6 Cleaning the Image Sensors (Transparent Contact Plates)

The scanner's image quality drops when the transparent contact plates over the image sensors become dirty, so clean the image sensors whenever necessary.

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1, "Opening and Closing the Top Cover".
- (3) As shown below, wipe off any soiled areas on the transparent contact plates using a soft cloth that has been moistened with water or a neutral detergent (diluted with water) and firmly wrung out.



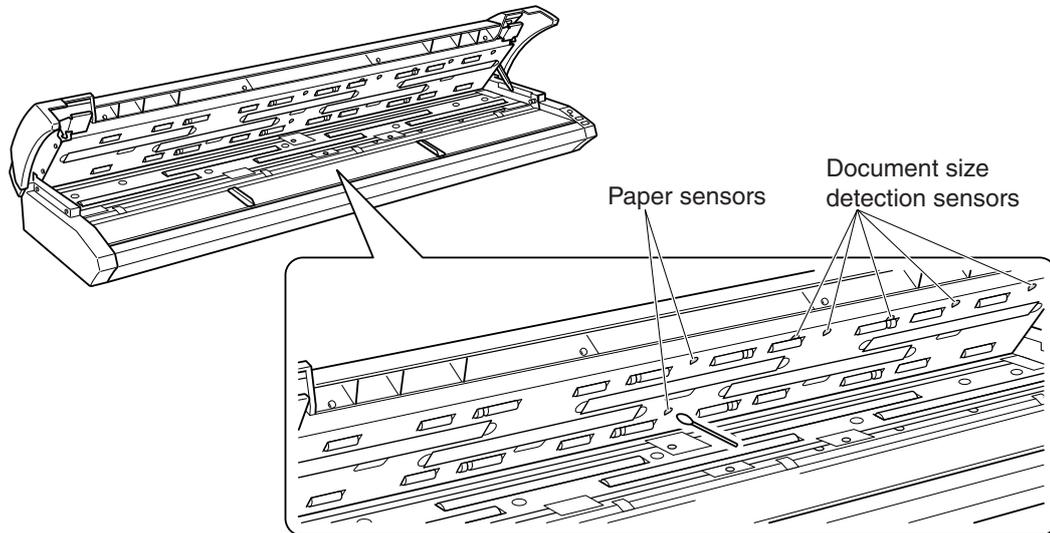
- (4) Wipe the transparent contact plates once again using a soft, dry cloth to remove all the moisture.
- (5) Close the top cover as described in Section 4.1, "Opening and Closing the Top Cover".

-
- Caution**
- Take care not to get your fingers caught in the cover.
 - Do not use a commercial cleaner for office equipment, a glass cleaner, or chemical solvents such as solutions containing alcohol. Moreover, although the transparent contact plate is not a maintenance part that requires periodic replacement, it is a consumable part because its surface may receive slight scratches due to minute particles of dust and other foreign matter. If document scanning produces unsatisfactory results (unexpected white or black streaks in the data) due to scratches on the transparent contact plate or other reasons, please perform the calibration procedure (see Section 4.7; "Scanner Calibration"). If the scanning results do not improve after calibration, the transparent contact plate(s) will need to be replaced.
-

4.7 Cleaning the Sensors

Accumulated dust on the paper sensors or on the document size detection sensors may prevent the document from being scanned correctly. The sensors must be cleaned when necessary.

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1, “Opening and Closing the Top Cover”.
- (3) Wipe the two paper sensors or the five document size detection sensors using a cotton swab.



- (4) Close the top cover as described in Section 4.1 “Opening and Closing the Top Cover”.

Caution

- Take care not to get your fingers caught in the top cover.
- Use a cotton swab or something equally soft to gently wipe the paper sensors or on the document size detection sensors. Do not use any chemicals to clean the sensors.

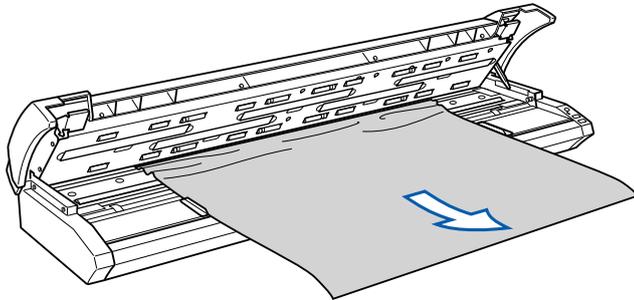
Checkpoint

Document size detection sensors are not equipped to CSX510-09.

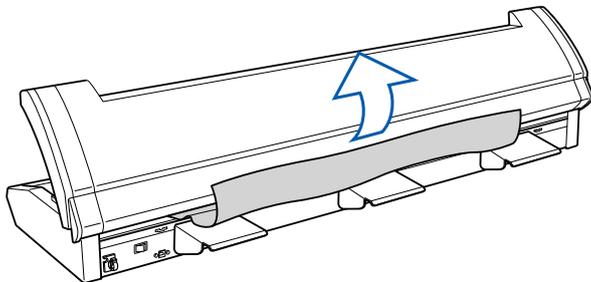
4.8 Removing a Jammed Document

If a document becomes jammed in the scanner during scanning or another operation, follow the procedure described below to remove the jammed document.

- (1) Turn off the scanner.
- (2) Open the top cover as described in Section 4.1 “Opening and Closing the Top Cover”.
- (3) If the document is jammed at the front, remove the document by pulling it forward.



- (4) If the document is jammed at the rear, remove it by pulling it out from the rear of the scanner.



- (5) Close the top cover as described in Section 4.1, “Opening and Closing the Top Cover”.

-
- Caution**
- Take care not to get your fingers caught in the top cover.
 - When removing a jammed document, pull on it gently to prevent damage to the document.
-

4.9 Scanner Adjustment

The driver software "Scanning Master Pro Color" (OPS115) is used to adjust (calibrate) the scanner. Calibration is done when the scanning quality has deteriorated such as in the following cases.

- The scanned image data is distorted
- The scanned image data colors are not uniform

Note: Problems with paper quality such as crease, wrinkles, and bending are excluded from this.

Preparation and checks

Recommended usage environment

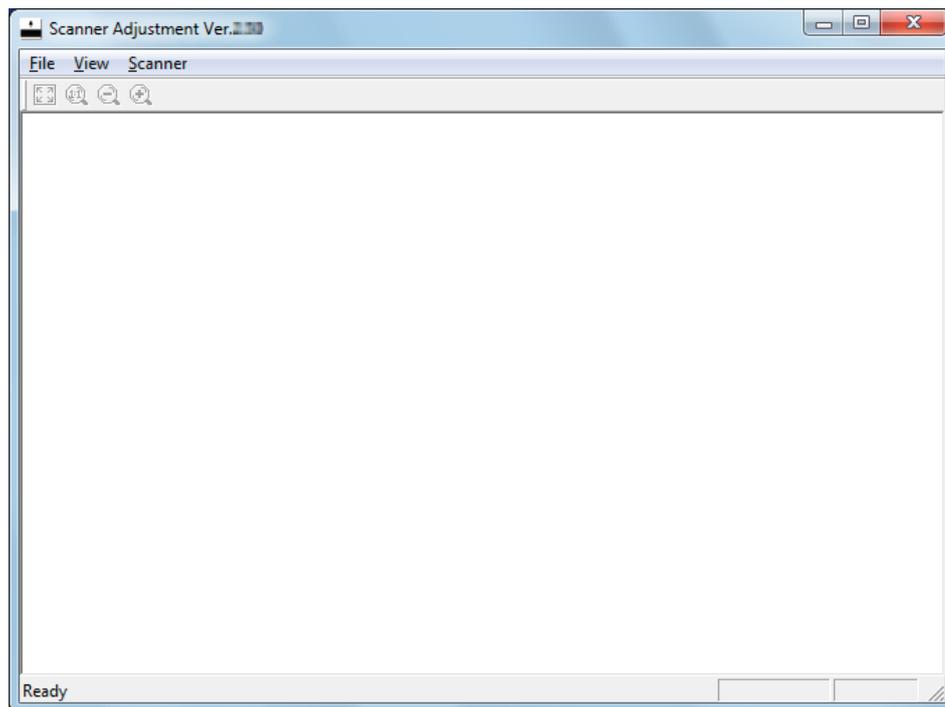
Monitor: 1024 x 768 pixels, High Color or better resolution



A low-resolution monitor will make it difficult to discern any problem areas.

Launching the Scanner Adjustment Program

- (1) Connect the scanner to the computer, switch on the scanner, and then switch on the computer.
- (2) Install Scanning Master Pro Color (OPS115) if it is not already installed.
- (3) Click the Start button, then select Programs > Scanning Master Pro Color > Scanner Adjustment.
- (4) Click Scanner Adjustment to launch the Scanner Adjustment program.



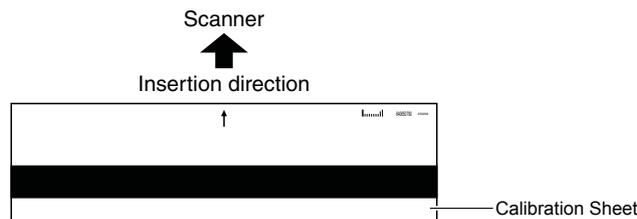
- (5) Select the desired adjustment item from the Scanner menu.

Calibration

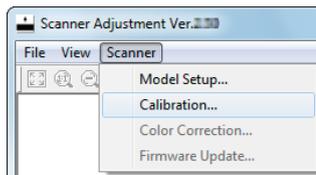
Before beginning calibration, clean the transparent contact plates located inside the scanner and the surface of the document-scanning table. Any dust or dirt on these surfaces may affect the calibration results and the resulting image quality.

Check that the calibration sheet is free of any dust or dirt.

- Caution**
- The calibration procedure will take some time. Do not turn off the scanner while calibration is underway. Accidentally turning off the scanner may result in damage that requires servicing.
 - Handle the calibration sheet with care so that it does not get bent. To prevent soiling, store it in its special storage box.
 - The calibration sheet is a consumable item. It cannot be used if it is bent or soiled.
 - The calibration sheet is a paper product. Do not attempt to clean it with any type of liquid cleaner.

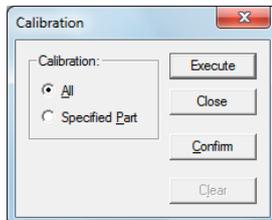


- (1) Launch the Scanner Adjustment program (as described earlier), and then display the Scanner menu.

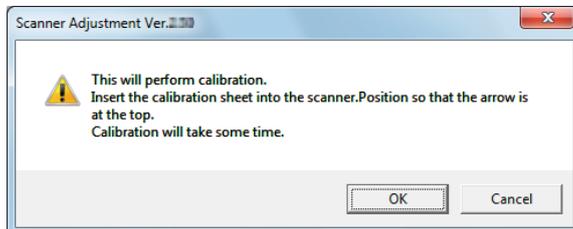


Select Calibration on the Scanner menu.

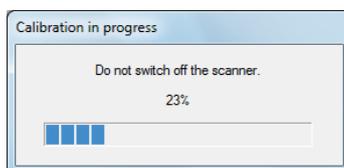
- (2) Select All in Calibration and click the [Execute] button.



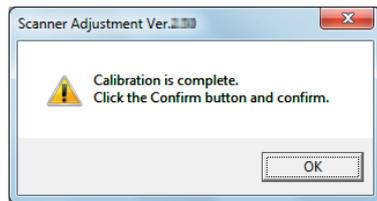
- (3) The following prompt is displayed. Insert the calibration sheet into the scanner as instructed.



- (4) Click the [OK] button to begin calibration.

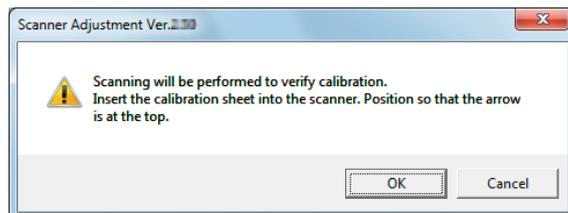


- (5) Calibration ends after approximately 10 minutes. (The calibration time depends on the model.)



Click the [OK] button to complete calibration.

- (6) To check the calibration results, click the [Confirm] button in the Calibration screen (shown in step (2) above).
- (7) The following prompt is displayed. Insert the calibration sheet into the scanner once again as instructed.

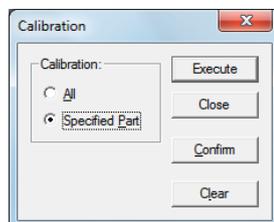


- (8) Click the [OK] button to start scanning.

The scanned data is displayed when scanning is complete. Colors may differ slightly for individual sensors to make it easier to identify problem areas in calibration. This does not indicate a defect.

Check that there are no vertical streaks, such as white patches, in the scanned data. (Streaks occur when calibration is not performed correctly due to contamination by dust or dirt.)

- (9) If the data is normal, calibration is complete. Click the [Close] button and exit the Scanner Adjustment Program.
- (10) If any abnormal data is observed, specify the problem areas as follows:
Select Calibration from the Scanner menu, and then select Specified Part in the Calibration screen.



- (11) The mouse arrow cursor changes to a cross cursor when moved over the data.
Click the left mouse button with the mouse positioned over the streak data. The selected area is shown in blue. Repeat this procedure for any additional streaks.
Areas that have been selected (shown in blue) can be deselected by clicking the left mouse button again.
To deselect all selected areas, click the [Clear] button.
- (12) Once all the required areas have been specified, remove the calibration sheet and clean the transparent contact plate and document-scanning table surfaces. Check the calibration sheet for dust and dirt.
- (13) Click the [Execute] button and then follow the instructions displayed on the screen. The procedure will be the same as that described in Steps (3) to (5) above. (The time required for calibration will vary according to the number of repeats specified.)
- (14) Perform Steps (8) to (10) once more, and verify the calibration results.

Caution If you perform the calibration procedure several times with no discernible results, there may be a problem with the scanner itself. In this case, please contact the store where you purchased your scanner or your nearest Graphtec representative.

CHAPTER 5 TROUBLESHOOTING PROCEDURES

If the scanner seems to be operating abnormally, perform the troubleshooting procedures described in this chapter before requesting a service call.

5.1 The scanner is turned on but doesn't operate at all

| Cause | Remedy |
|--|---|
| The power cable has come loose. | Insert the power plug firmly. |
| The scanner is connected to a power outlet that does not provide the rated power supply or supply voltage. | Use only the rated power supply and supply voltage. |
| The power outlet is not supplying a supply voltage. | Check the power supply. |

5.2 The scanner operates improperly after connection to the computer

| Cause | Remedy |
|--|--|
| Is the scanner properly grounded? | Make sure that the scanner is grounded. |
| Is the USB cable between the computer and the scanner working properly? | Determine whether there are any problems with either of the cable connectors (e.g. a broken or bent pin) and ensure that the cable is inserted firmly into the connectors. |
| Are you using a USB cable not compliant with the USB 2.0 interface? | Ensure that you use a USB 2.0-compliant USB cable. |
| Is an add-on USB card being used? | USB 2.0 add-on cards are not supported. Correct operation is not guaranteed when the scanner is connected to a USB port that is not the standard built-in computer port. |
| Is the Graphtec Network Utility connected? (when using the Ethernet connection) | Connect the Graphtec Network Utility. |

"Communication error" is displayed for the Graphtec Network Utility status, and connection cannot be performed.

| Cause | Remedy |
|---|---|
| An abnormality has occurred in the network environment. | Return the network environment to its normal status. |
| The scanner was turned on before power was supplied to the hub. (With some hub connections, the scanner is not recognized if power is supplied to the hub after it has been supplied to the scanner.) | Turn off the scanner, wait for a short time, and then turn it on again. |
| The scanner is in energy-saving mode. | The Ethernet interface sleeps while the scanner is in energy-saving mode. Press one of the buttons on the scanner's control panel to bring the scanner out of the energy-saving mode. |

5.3 The control panel's red ERROR LED is lit

| Cause | Remedy |
|---|--|
| A ROM, RAM or other hardware error occurred during the scanner's self-test. | Remedy An internal error has occurred. Contact the store where you purchased your scanner or your nearest Graphtec representative. |

5.4 The control panel's red ERROR LED is flashing

| Cause | Remedy |
|---|--|
| The scanner was turned on with a document left loaded inside it. | Open the cover and remove the document (see Section 4.8, "Removing a Jammed Document"). |
| The top cover was opened during a scanning operation or while a document was left in the scanner. | Press the control panel's [STOP] button to cancel the error state. Next, remove the document by pressing the [EJECT] button to feed the document. |
| If the document is jammed. | Open the cover and remove the document (see Section 4.8, "Removing a Jammed Document.") |
| The length of the actual document is longer than the document length setting made in the Scanning Arts SP driver. | The scanner's ERROR LED flashes when the end of the document is reached, but this does not indicate a problem with the scanner itself. Follow the instructions provided by the driver. |
| The top cover is not fully locked. | Close the top cover firmly until it is locked in place (see Section 4.1, "Opening and Closing the Top Cover"). |

5.5 The document isn't properly fed to the initial scanning position

| Cause | Remedy |
|---|--|
| The document is curled, too thin, or otherwise in a poor condition. | Load the document after placing it inside the carrier sheet (see Section 3.5, "Using the Carrier Sheet"). |
| Dust has accumulated on the paper sensors. | Clean the paper sensors (see Section 4.7, "Cleaning the Sensors"). |
| The document to be scanned may be too thick or heavy. | The cause of this problem is often attributable to the weight or length of the document. In such cases, you should support the document with your hands when you insert it into the scanner, or lower the scan speed. If again the result is unsatisfactory, carry out these two actions simultaneously. |
| The document is a thick, long-length document. | Load the document while supporting it with your hands. |

5.6 The scanned image data is completely white or completely black

| Cause | Remedy |
|--|---|
| The document was loaded with its target surface face down instead of up. | Load the document in the scanner with its target surface (the surface to be scanned) face up. |
| The scanning conditions set were inappropriate for the document. | Confirm the scanning conditions and re-set them. |

5.7 The image quality has dropped

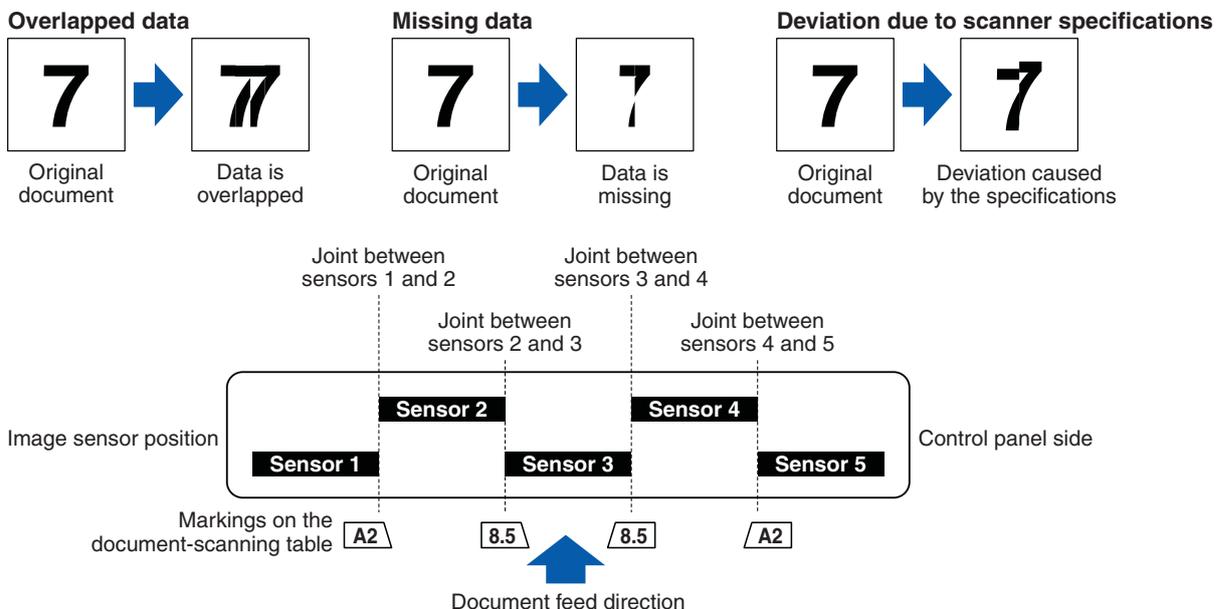
| Cause | Remedy |
|---|---|
| The transparent contact plates over the image sensors are dirty. | Clean the transparent contact plates (see Section 4.6, "Cleaning the Image Sensors"). |
| The document is transparent or translucent, but a carrier sheet was not used. | Use the carrier sheet (see Section 3.5, "Using the Carrier Sheet"). |

5.8 The scanned data is incorrectly aligned

| Cause | Remedy |
|---|---|
| The data is misaligned at a joint between the image sensors (see the figure below). | Remedy After opening the Tools menu of the driver program (Scanning Master Pro Color driver) provided with your canner, select the Joint Adjustment function then perform adjustment to achieve a seamless image. |

Checkpoint

Your scanner comes shipped from the factory after being adjusted to ensure high precision. Cause The data is misaligned at a joint between the image sensors (see the figure below). Remedy After opening the Tools menu of the driver program (Scanning Master Pro Color driver) provided with y Due to its operating environment or other factors, however, the scanning precision may deviate in very rare cases. Moreover, fine adjustment to correct any deviation can be performed using the driver software if the cause of the deviation is overlapped or missing data. Deviations due to the scanner specifications, however, cannot be adjusted.



Caution

Because the document is loaded face up, Sensor 1 is the leftmost sensor in the driver software's display screens.

5.9 Smudges not appearing in the original document appear in the scanned data

| Cause | Remedy |
|---|--|
| The image scanned has a glossy surface, such as a photograph. | Remedy Documents with a glossy surface should be scanned by placing them inside the carrier sheet. |

5.10 The color intensity of the image data differs

| Cause | Remedy |
|--|---|
| The scanner contains five contact image sensors, the characteristics of which have been adjusted. However, some variation in color intensity may occur, depending on the type of document scanned. | Adjust the color using the color-correction function in the driver software (Scanning Master Pro Color) provided with your scanner. One adjustment method is to make similar colors all the same color. |
| The document scanned was creased or curled. | Creased or curled documents should be scanned by placing them inside the carrier sheet. |

5.11 The document length differs from the scanned data length

| Cause | Remedy |
|--|--|
| Distance correction adjustments have been made to ensure scanning precision for a document of a different paper type. The scanning precision varies according to the type of document. | Remedy After opening the Tools menu of the driver program (Scanning Master Pro Color) provided with your scanner, select the Distance Correction function to adjust the precision. |

5.12 Stripes or moire patterns which are not in the original document appear in the scanned data

| Cause | Remedy |
|---|---|
| The scanned document contains filled or shaded areas. | Remedy Depending on the resolution selected, data that is comprised of filled or shaded areas may be scanned in as stripes or moiré patterns. This is not due to a scanner malfunction. Note, however, that the vividness of the stripe and moiré patterns can be lessened by changing the resolution. |

5.13 The scanned image data is distorted

| Cause | Remedy |
|--|--|
| The scanner's image scanning quality has deteriorated. | Perform calibration (see Section 4.9, "Scanner Adjustment"). |
| Is the scanner properly grounded? | Make sure that the scanner is grounded.n. |

5.14 The scanned image data is patchy

| Cause | Remedy |
|--|--|
| The scanner's image scanning quality has deteriorated. | Perform calibration (see Section 4.9, "Scanner Adjustment"). |
| You are using a carrier sheet with a color document. | Don't use the carrier sheet with color documents. |

5.15 The document cannot be fed correctly

| Cause | Remedy |
|--|--|
| The document is fed at an irregular rate (resulting in the images being scanned unevenly) or stops feeding half-way through. | The cause of this problem is often attributable to the weight or length of the document. In such cases, you should support the document with your hands when you insert it into the scanner, lower the scanning speed, or do both. |
| The document has been loaded at an angle. | Reload the document. |

5.16 Automatic Deskew is not performed correctly

| Cause | Remedy |
|---|--|
| Translucent paper (Mylar paper, tracing paper, etc.) or paper with damaged edges is used. | In automatic deskew "the tip of the paper" is detected, and the correction angle is calculated. If "the tip of the paper" can not be detected properly because of the paper, automatic deskew might not be able to give the expected results. In that case, use the included driver software (Scanning Master Pro Color)'s "Tools / Deskew" after scanning and carry out manual deskewing. |
| Carrier sheet is used. | Do not use a carrier sheet. |

APPENDIX

Appendix A Options and Consumables

Optional and consumable items can be obtained from the store where you purchased your scanner or your nearest Graphtec representative.

Options

| Part no. | Item name |
|----------|-----------|
| ST0074 | Stand |

Consumables

| Part no. | Item name |
|----------|----------------------------|
| IS0922 | Carrier sheet (A0) |
| IS0908 | Carrier sheet (A1) |
| IS0932 | Calibration sheet |
| EM-CP | Cleaning paper (50 sheets) |

Appendix B Specifications

| Item | CSX510-09 | | |
|--|--|--|----------------------|
| Document size | ANSI Architectural E to A, ANSI Engineering E to A Maximum width: 965 mm; minimum width: 257 mm | | |
| Effective scanning area | Width: 932.2 mm (centered) Length: 999.99999m* ¹ (The value range where scanning length in software) | | |
| Guaranteed scanning precision range * ² | 841 x 1189 mm | | |
| Document thickness | Up to 1.6 mm (including the carrier sheet) | | |
| Optical resolution | 600 dpi | | |
| Interpolated resolution | 50 dpi up to 4800 dpi (in increments of 1 dpi) | | |
| Main scanning system | Contact image system (five A4 sensors in a zigzag pattern) | | |
| Sub scanning system | Document travel (sheet through) system | | |
| Scanning surface | Upper surface (Face up) | | |
| Scanning speed * ³ | 400 dpi, ISO A0 size | | |
| | High-speed scan | Normal scan | High quality scan |
| | • Monochrome: 16 s | • Monochrome: 30 s | • Monochrome: 31 s |
| | • Grayscale: 16 s | • Grayscale: 30 s | • Grayscale: 31 s |
| | • 24-bit color: 44 s | • 24-bit color: 85 s | • 24-bit color: 86 s |
| Scanning precision * ² | ±0.1% or ±1 pixel, whichever is larger | | |
| Gradation | Monochrome | Bilevel, intermediate tones (dithering, error diffusion) | |
| | Gray scale | 256 shades | |
| | Gray balance | 256 shades | |
| | Color | 24-bit, 8-bit | |
| Color space | sRGB, Adobe RGB | | |
| Sensor | Total number of pixels | 22,020 pixels | |
| | Output | Color: 48 bits/pixel, Grayscale: 16 bits/pixel | |
| | Light source | LED (RGB) | |
| Interface | USB 2.0 (High-speed) | | |
| Output | Image data | | |
| Rated power supply | 100 to 120/200 to 240 VAC ±10%, 50/60 Hz | | |
| Operating environment | Temperature: 10°C to 35°C | | |
| | Humidity: 35% to 80% RH (non-condensing) | | |
| Power consumption | 42 W * ⁴ (3 W or less in power-saving mode) | | |
| External dimensions (approx.) | 1097 (W) x 160 (H) x 322 (D) mm | | |
| Weight | Approx. 25 kg | | |

*¹ In actual scanning of the document is limited by the available memory and hard disk capacity of the computer, and document condition. Moreover, the scanning of the long-length is out of the guarantee. The skew might be generated by the setting and the condition of the document, and in this case there is a possibility to be able to hurt the document, and not be able to scan. In this case it becomes out of the guarantee, please be carefully for the handling and the setting of the document.

*² Notes on scanning precision The scanning precision may vary slightly depending on the grade and thickness of the medium being scanned, and on the operating conditions. The precision figures above were measured under the operating conditions described below.

- Special test chart: Mylar sheet #300
- Guaranteed precision conditions: Temperature: 20°C ±3°C; Humidity: 60% ±10% RH
- Scanning condition: 600dpi High quality (Grayscale)

*³ Including data-transfer time The following system was used to measure the scanning speeds.

- CPU: Core 2 Duo, 2.5 GHz
- Memory: 4 GB
- Interface: USB 2.0

The scanning speeds may be slower depending on the PC environment or the scanning conditions.

*⁴ Average power consumption for operating.

| Item | CSX530-09 | | |
|--|--|--|----------------------|
| Document size | ANSI Architectural E to A, ANSI Engineering E to A Maximum width: 965 mm; minimum width: 257 mm | | |
| Effective scanning area | Width: 932.2 mm (centered) Length: 999.99999m* ¹ (The value range where scanning length in software) | | |
| Guaranteed scanning precision range * ² | 841 x 1189 mm | | |
| Document thickness | Up to 1.6 mm (including the carrier sheet) | | |
| Optical resolution | 600 dpi | | |
| Interpolated resolution | 50 dpi up to 9600 dpi (in increments of 1 dpi) | | |
| Main scanning system | Contact image system (five A4 sensors in a zigzag pattern) | | |
| Sub scanning system | Document travel (sheet through) system | | |
| Scanning surface | Upper surface (Face up) | | |
| Scanning speed * ³ | 400 dpi, ISO A0 size | | |
| | High-speed scan | Normal scan | High quality scan |
| | • Monochrome: 7 s | • Monochrome: 12 s | • Monochrome: 13 s |
| | • Grayscale: 7 s | • Grayscale: 12 s | • Grayscale: 13 s |
| | • 24-bit color: 17 s | • 24-bit color: 31 s | • 24-bit color: 32 s |
| Scanning precision * ² | ±0.1% or ±1 pixel, whichever is larger | | |
| Gradation | Monochrome | Bilevel, intermediate tones (dithering, error diffusion) | |
| | Gray scale | 256 shades | |
| | Gray balance | 256 shades | |
| | Color | 24-bit, 8-bit | |
| Color space | sRGB, Adobe RGB | | |
| Sensor | Total number of pixels | 22,020 pixels | |
| | Output | Color: 48 bits/pixel, Grayscale: 16 bits/pixel | |
| | Light source | LED (RGB) | |
| Interface | USB 2.0 (High-speed) | | |
| Output | Image data | | |
| Rated power supply | 100 to 120/200 to 240 VAC ±10%, 50/60 Hz | | |
| Operating environment | Temperature: 10°C to 35°C Humidity: 35% to 80% RH (non-condensing) | | |
| Power consumption | 42 W * ⁴ (3 W or less in power-saving mode) | | |
| External dimensions (approx.) | 1097 (W) x 160 (H) x 322 (D) mm | | |
| Weight | Approx. 25 kg | | |

*1 In actual scanning of the document is limited by the available memory and hard disk capacity of the computer, and document condition. Moreover, the scanning of the long-length is out of the guarantee. The skew might be generated by the setting and the condition of the document, and in this case there is a possibility to be able to hurt the document, and not be able to scan. In this case it becomes out of the guarantee, please be carefully for the handling and the setting of the document.

*2 Notes on scanning precision The scanning precision may vary slightly depending on the grade and thickness of the medium being scanned, and on the operating conditions. The precision figures above were measured under the operating conditions described below.

- Special test chart: Mylar sheet #300
- Guaranteed precision conditions: Temperature: 20°C ±3°C; Humidity: 60% ±10% RH
- Scanning condition: 600dpi High quality (Grayscale)

*3 Including data-transfer time The following system was used to measure the scanning speeds.

- CPU: Core 2 Duo, 2.5 GHz
- Memory: 4 GB
- Interface: USB 2.0

The scanning speeds may be slower depending on the PC environment or the scanning conditions.

*4 Average power consumption for operating.

| Item | | CSX550-09 | | |
|--|--|--|----------------------|--|
| Document size | ANSI Architectural E to A, ANSI Engineering E to A Maximum width: 965 mm; minimum width: 257 mm | | | |
| Effective scanning area | Width: 932.2 mm (centered) Length: 999.99999m* ¹ (The value range where scanning length in software) | | | |
| Guaranteed scanning precision range * ² | 841 x 1189 mm | | | |
| Document thickness | Up to 1.6 mm (including the carrier sheet) | | | |
| Optical resolution | 1200 dpi | | | |
| Interpolated resolution | 50 dpi up to 9600 dpi (in increments of 1 dpi) | | | |
| Main scanning system | Contact image system (five A4 sensors in a zigzag pattern) | | | |
| Sub scanning system | Document travel (sheet through) system | | | |
| Scanning surface | Upper surface (Face up) | | | |
| Scanning speed * ³ | 400 dpi, ISO A0 size | | | |
| | High-speed scan | Normal scan | High quality scan | |
| | • Monochrome: 7 s | • Monochrome: 11 s | • Monochrome: 12 s | |
| | • Grayscale: 7 s | • Grayscale: 11 s | • Grayscale: 12 s | |
| | • 24-bit color: 15 s | • 24-bit color: 28 s | • 24-bit color: 29 s | |
| Scanning precision * ² | ±0.1% or ±1 pixel, whichever is larger | | | |
| Gradation | Monochrome | Bilevel, intermediate tones (dithering, error diffusion) | | |
| | Gray scale | 256 shades | | |
| | Gray balance | 256 shades | | |
| | Color | 24-bit, 8-bit | | |
| Color space | sRGB, Adobe RGB | | | |
| Sensor | Total number of pixels | 44,040 pixels | | |
| | Output | Color: 48 bits/pixel, Grayscale: 16 bits/pixel | | |
| | Light source | LED (RGB) | | |
| Interface | USB 2.0 (High-speed) | | | |
| | Network (10 BASE-T/100 BASE-TX/1000 BASE-T) | | | |
| Output | Image data | | | |
| Rated power supply | 100 to 120/200 to 240 VAC ±10%, 50/60 Hz | | | |
| Operating environment | Temperature: 10°C to 35°C Humidity: 35% to 80% RH (non-condensing) | | | |
| Power consumption | 55 W * ⁴ (3 W or less in power-saving mode) | | | |
| External dimensions (approx.) | 1097 (W) x 160 (H) x 322 (D) mm | | | |
| Weight | Approx. 25 kg | | | |

*1 In actual scanning of the document is limited by the available memory and hard disk capacity of the computer, and document condition. Moreover, the scanning of the long-length is out of the guarantee. The skew might be generated by the setting and the condition of the document, and in this case there is a possibility to be able to hurt the document, and not be able to scan. In this case it becomes out of the guarantee, please be carefully for the handling and the setting of the document.

*2 Notes on scanning precision The scanning precision may vary slightly depending on the grade and thickness of the medium being scanned, and on the operating conditions. The precision figures above were measured under the operating conditions described below.

- Special test chart: Mylar sheet #300
- Guaranteed precision conditions: Temperature: 20°C ±3°C; Humidity: 60% ±10% RH
- Scanning condition: 600dpi High quality (Grayscale)

*3 Including data-transfer time The following system was used to measure the scanning speeds.

- CPU: Core 2 Duo, 2.5 GHz
- Memory: 4 GB
- Interface: USB 2.0

The scanning speeds may be slower depending on the PC environment or the scanning conditions.

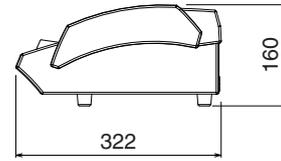
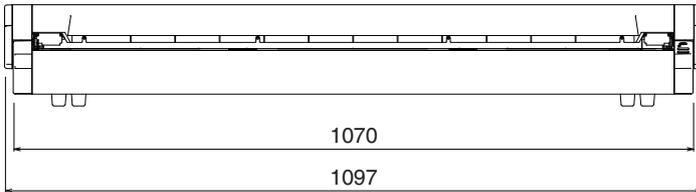
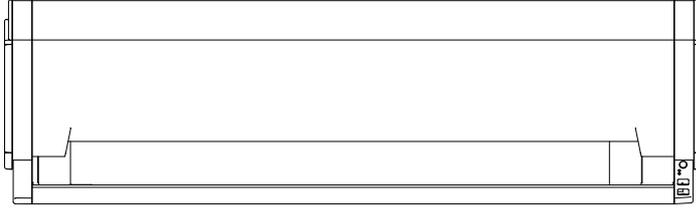
*4 Average power consumption for operating.

Appendix C External Dimensions

- CSX510-09/CSX530-09/CSX550-09

Unit: mm

Dimensional accuracy: ± 5 mm

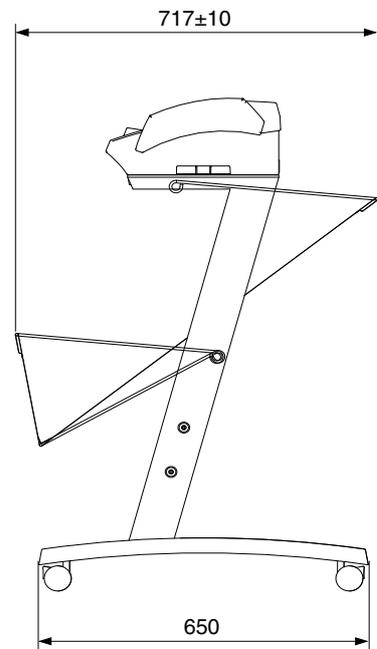
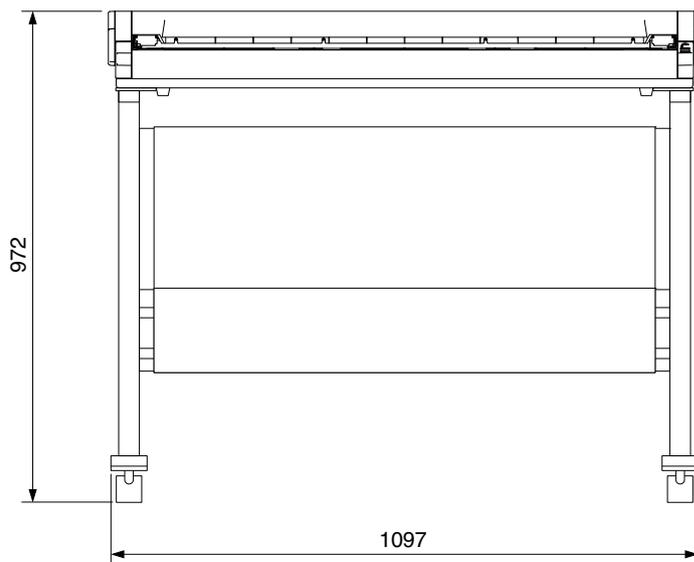
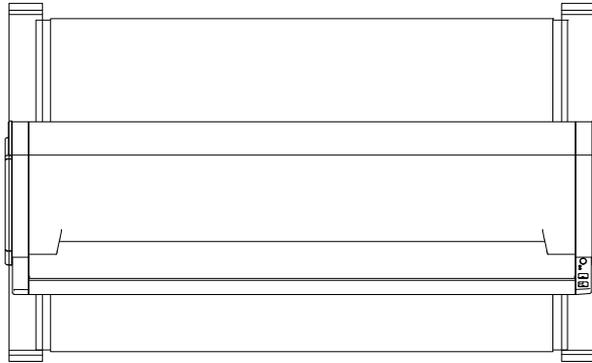


• CSX510-09/CSX530-09/CSX550-09

When the scanner is mounted on the stand

Unit: mm

Dimensional accuracy: ± 5 mm



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The specifications, etc., in this manual are
subject to change without notice.

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