

SEKONIC

Data Transfer Software
Ver2.0

Software Guide



IMPORTANT NOTICE

Notice to users: Please read this information carefully before use.

Thank you very much for purchasing this product.

Before using the Data Transfer Software version 2.0 (hereinafter, "Data Transfer Software"), please carefully read the following terms and conditions.

By opening this CD-ROM package, your acceptance is implied of all terms and conditions of the software license agreement.

This Agreement is concluded between you (hereinafter, "USER") and Sekonic Corporation (hereinafter, "SEKONIC"), with provisions as follows concerning the use of the software provided together with this Agreement.

SOFTWARE LICENSE AGREEMENT

Concerning the use of software provided by parties other than SEKONIC under software license agreements other than this Agreement, the provisions of such other agreements shall take precedence over the provisions hereunder.

1. Definitions

- (1) The CD-ROM shall mean the CD-ROM provided to USER by SEKONIC.
- (2) The Software shall mean the software recorded on the CD-ROM provided to USER by SEKONIC.
- (3) The Documentation shall mean, collectively, the user guide to the software provided to USER by SEKONIC, and other documentation related to the Software.
- (4) The Product shall mean, collectively, the light meter unit and the accessories contained in the same package.

2. Purpose

This Agreement establishes the terms and conditions of use for the Software provided to USER by SEKONIC.

- (1) USER may install and use the Software on one (1) personal computer.
- (2) USER is licensed to make one (1) copy of the Software as a back-up.

3. Prohibitions

- (1) USER may not reproduce the Software and/or the Documentation.
- (2) USER may not assign, loan, convey, or otherwise transfer the Software, the CD-ROM, and the Documentation, nor sub-license rights licensed to USER by SEKONIC, to third parties.
- (3) USER may not alter, amend, or adapt the Software and the Documentation, nor erase markings attached thereto concerning copyrights and other property rights.
- (4) USER may not, and may not cause a third party to, modify, reverse engineer, decompile, or disassemble the Software. SEKONIC provides no warranty for any damage to the Software from modifications made by USER.

4. Copyrights and intellectual property rights

Title to copyrights and other intellectual property rights concerning the Software and the Documentation is owned by SEKONIC or by the owner or owners stated on the Software and the Documentation.

5. Warranties and exemptions

(1) SEKONIC will replace the Software free of charge in case physical defects of the CD-ROM such as read error are discovered within 90 days of purchase by USER.

(2) SEKONIC makes no warranties with respect to the Product concerning infringement, or otherwise, on intellectual property rights of third parties, and accepts no responsibility whatsoever for damage and concomitant claims for indemnification due to infringement on copyrights and other intellectual property rights of third parties arising from the use of the Product.

6. Limitation of liability

Except for the cases expressly provided for in Section 5. "Warranties and exemptions," in no event will SEKONIC be liable in any form for damage caused by the use or failure to function of the Product (including but not limited to lost profit, and incidental, special, and consequential damage).

7. Compliance with Laws Related to Export Restrictions

USER may not take the Software out of their country or engage in other activities in violation of laws related to export restrictions in their country.

8. Termination of Agreement

This Agreement takes effect at the time when USER opens the Product. In any of the following events, SEKONIC shall be able to terminate this Agreement without advance notice, and end USER'S use of the Product.

(1) In case USER has breached provisions and conditions of this Agreement.

(2) In case USER has disposed of the Software and the copy thereof.

9. Term

This Agreement takes effect on the day USER initiates use of the Software, and remains in force and effect until termination of this Agreement in accordance with Section 8. "Termination of Agreement" or until USER terminates use of the Software.

10. Measures at termination

USER shall promptly perform the following in case of termination of this Agreement or end of use of the Software.

(1) USER at USER'S responsibility shall delete or discard the Software (including the copy thereof), the CD-ROM, and the Documentation.

(2) SEKONIC will not be held liable for any damages in any way if USER uses the Product after termination of this Agreement.

11. Court of jurisdiction

For any dispute arising in connection with this Agreement, the sole court of jurisdiction shall be the district court having jurisdiction at the location of the head office of SEKONIC.

This documentation has been prepared assuming basic knowledge of personal computers (hereinafter, "PC") and the use of Windows and Macintosh operating systems.

Concerning PC use and the use of Windows and Macintosh operating systems, please refer to the accompanying respective manuals.

Please note that on-screen displays and menus may differ from those shown in this documentation. Explanations provided in this documentation use mostly Macintosh screens.

■ Terminology and trademarks

- Windows is a registered trademark of Microsoft Corporation in the USA and/or other jurisdictions. The official name of Windows is "Microsoft® Windows® Operating System."
- Macintosh and MacOS are trademarks of Apple Computer, Inc. registered in the USA and/or other jurisdictions.
- Adobe Reader is a registered trademark of Adobe Systems Inc.
- All other company or product names are trademarks or registered trademarks of the respective companies.

To ensure safe operation, read this first!

Be sure to read these Safety Precautions before using the Product and make sure you operate the Product correctly.



WARNING!

This symbol indicates the risk of death or personal injury for the operator of the Product whenever information marked with this symbol is disregarded while using the Product.



Caution!

This symbol indicates the risk of light to moderate personal injury for the operator of the Product or material damage whenever information marked with this symbol is disregarded while using the Product.

NOTE!

This symbol indicates important information or a limitation. Be sure to read information marked with this symbol to avoid operational errors.

Reference

This symbol indicates reference information for operations, information about related functions, etc. Reading of such information is highly recommended.



Caution!

Never play the bundled CD-ROM on a music CD player. Doing so creates the risk of hearing damages, or damage to your speakers, headphones, or other equipment.

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1. Overview of Data Transfer Software and Exposure Profiling

(1) Main functions of *Data Transfer Software*

Data Transfer Software is application software for creating and editing camera exposure profiles and transferring them to the light meter unit.

(2) What is a camera exposure profile?

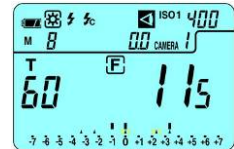
A camera exposure profile plays two main roles.

- [1] It can be used to display on a light meter the unique dynamic range and clipping point of the digital camera you are using.
- [2] To display more accurate exposure values on the light meter, it records unique variations in the camera, lens shutter speed, aperture, etc. that you are using and reflects them in the exposure display.

◆ Transfers the unique sensor characteristics of the digital camera to the light meter

The dynamic range and clipping point differ depending on the camera you are using, so it is necessary to pay careful attention to how well the color and detail are captured in the highlight and shadow areas when you take a picture.

By creating a camera exposure profile in *Data Transfer Software* and transferring it to the light meter, you can display on the LCD screen on the light meter unit the unique sensor characteristics of the digital camera you are using as the dynamic range and clipping point, which makes it possible to instantly check whether or not a subject falls within the exposure range.

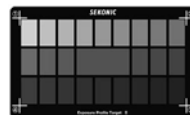


◆ Achieves more accurate exposure by matching the camera you are using with the light meter display

Even if you set exposure values measured on a light meter in the camera, you may not obtain the standard exposure due to variations in the camera, lens shutter speed and aperture you are using.

If this happens, you can use *Data Transfer Software* to match the values on the light meter with the camera variations by correcting the display in the light meter so that it is possible to obtain the standard exposure.

- * This function takes the characteristics of the camera you are using into account and achieves better correction compared to prescribed correction functions that correct the measured results uniformly.

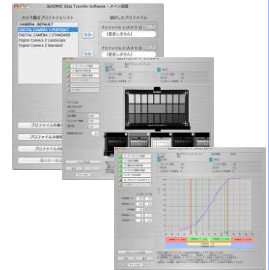


(3) Using *Data Transfer Software* to create a profile

- ◆ Make a test exposure using your camera to create a camera exposure profile.



- ◆ Create a camera exposure profile in *Data Transfer Software* based on the test exposure data.



- ◆ Transfer the camera exposure profile to the light meter.



- ◆ Using a camera exposure profile makes it possible to view an exposure display that matches the camera conditions, so you can achieve more accurate exposure control.

- ◆ An exposure profile allows you to visually check on the LCD whether or not the highlight and shadow areas of the subject are within the exposure range.
(Displayed on the scale at the bottom of the LCD exposure display)



2. Data Transfer Software Installation Guide

(1) Macintosh version

1) Setup

In order to use *Data Transfer Software*, you first need to install the application and the USB driver from the bundled CD-ROM.

Follow the steps below to install.

2) Operating environment

Software	USB driver ^{*1}
	<i>Data Transfer Software</i> (this software)
OS	Mac OS X 10.3 or later ^{*2}
Models	Macintosh with a standard USB interface ^{*3*4}
CPU	PowerPC G4, G5
	Intel Core Duo, Core 2 Duo, Xeon ^{*3}
RAM	At least 512 MB (At least 1024 MB recommended)
Hard disk space	At least 100 MB
Display	Screen resolution: At least 1024 x 768, Color quality: At least 16-bit

*1 L758 series only

*2 If you are using a Macintosh computer, be sure to use the Macintosh version of the software. Operation of the Windows version is not guaranteed when running in Virtual PC for the Mac.

*3 For PowerPC and Intel CPUs. 68k devices are not supported.

*4 • The operating system must be the one preinstalled on the computer.

- Proper operation may not be possible on certain Macintosh models and configurations.
- Proper operation is not guaranteed on a Macintosh with an upgraded operating system or an add-on USB interface.
- Proper operation is not guaranteed over connections through a USB hub.
- A drive capable of reading a CD-ROM is required to install the software.

3) Installing the software

- 1) Turn on your Macintosh and start up MacOS X.
- 2) Set the bundled CD-ROM into the CD-ROM drive of your Macintosh.
- 3) To start the installation, double-click the "*Data Transfer Software*.pkg" icon.

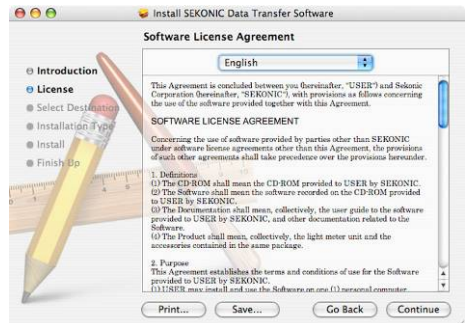


DataTransferSoftware
(2.0).mpkg

- 4) Click the [Continue] button.



- 5) The license agreement is displayed. Select [English], read the agreement, and then click the [Continue] button.



◆ NOTE!

- If an earlier version of *Data Transfer Software* is installed, uninstall it, and then install this version of *Data Transfer Software*.
- If you select a language that differs from that of the OS on your computer, *Data Transfer Software* can be installed, but corrupted characters may be displayed.

If you accidentally install the wrong language version of *Data Transfer Software*, first uninstall it, and then re-install the correct language version.

For information about uninstalling the software, see "[4] Uninstalling the software". (See page 13)

6) After reading the license agreement, click the [Agree] button if you agree to its terms and conditions.



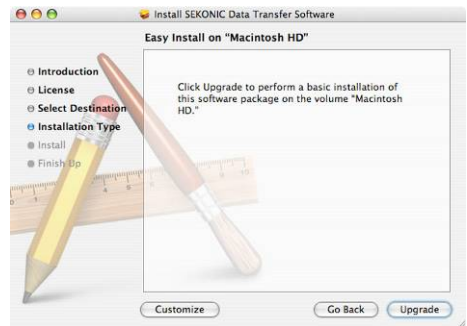
7) Confirm that the installation folder volume is correct, and then click the [Continue] button.

If you want to install in a different [folder], click the [Select] button and then select the folder you want.



8) You are now ready to install *Data Transfer Software*.

To continue, click the [Upgrade] button.



9) Authentication is run. Make entries in "Name" and "Password" and click the OK button.



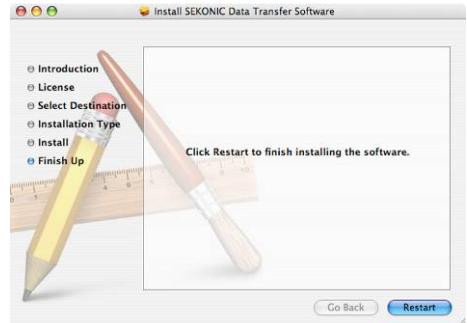
10) Next , install the USB driver.

To continue installing, click the [Continue] button.



1(1) Installation is now complete. You must restart your computer after the installation, so click the [Restart] button.

The computer restarts.

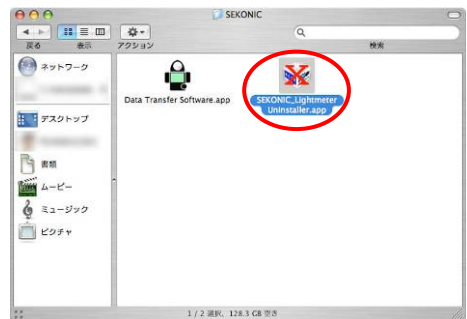


4)Uninstalling the software

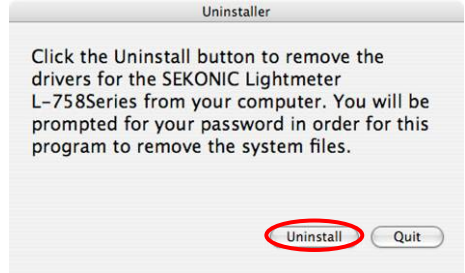
◆NOTE!

Perform the following procedure only if you no longer want *Data Transfer Software* installed on your computer.

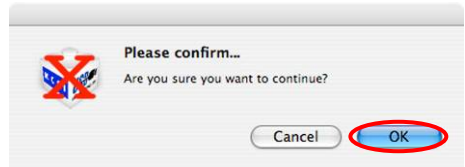
- (1) Quit all applications that are currently running on your computer.
- (2) Open "Macintosh HD" and then double-click the "Applications" folder.
- 3) Select the "SEKONIC" folder, and double-click the "SEKONIC Light meter Uninstaller.app" file.



4) You are now ready to uninstall *Data Transfer Software*. To continue, click the [Uninstall] button.



5) The uninstallation confirmation screen is displayed. To continue, click the [OK] button.



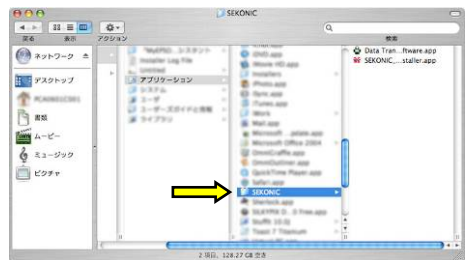
6) Authentication is run. Make entries in "Name" and "Password" and click the [OK] button.



7) Uninstallation is now complete. Click the [OK] button.



8) Select the "SEKONIC" folder in the "Applications" folder, and delete it by dragging it into the Trash.



◆ Reference

The profile data remains even if the application is uninstalled.

If you want to completely delete the profile data, select [Delete Profiles] before uninstalling the application.

(2) Windows version

1) Setup

In order to use *Data Transfer Software*, you first need to install the application and the USB driver from the bundled CD-ROM.

Follow the steps below to install.

2) Operating environment

Software	USB driver ^{*1}
	<i>Data Transfer Software</i> (this software)
OS	Windows ® 2000 ^{*2}
	Windows ® XP ^{*3}
	Windows ® Vista ^{*4}
Models	PC with a standard USB interface ^{*5}
CPU	1 GHz or faster Pentium III or later CPU
RAM	At least 512 MB (With Vista, at least 1024 MB recommended)
Hard disk space	At least 100 MB
Display	Screen resolution: At least 1024 x 768, Color quality: At least 16-bit

*1 L758 series only.

*2 Professional Edition SP4 or later. Operations on Windows 2000 Server are not guaranteed.

*3 Home Edition/Professional Edition, SP1 or later.

*4 Home Basic/Home Premium/Business/Ultimate.

*5 • The operating system must be the one preinstalled on the computer.

• Proper operation may not be possible on certain computer models and configurations.

• Proper operation is not guaranteed on a computer with an upgraded operating system or an add-on USB interface, a homemade computer, a shop-made computer, or in an emulator environment (such as Virtual PC).

• Proper operation is not guaranteed over connections through a USB hub.

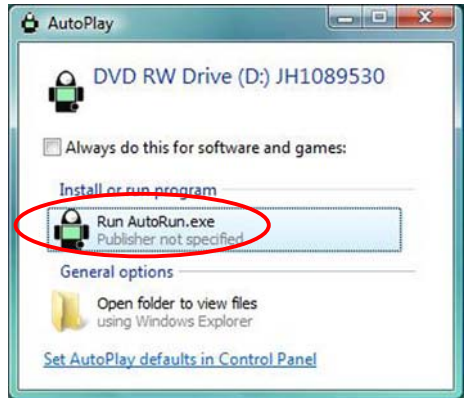
• A drive capable of reading a CD-ROM is required to install the software.

3) Installing the software

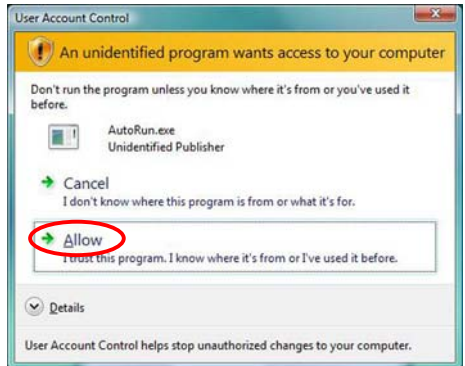
- 1) Turn on your PC and start up Windows.
- 2) Load the USB driver file onto your PC.

The installer should start up automatically when you set the bundled CD-ROM into the CD-ROM drive.

When the screen to the right is displayed, click the [AutoRun.exe] button.



- 3) OS User Account Control asks permission to install the program. When the screen to the right is displayed, click the [Allow] button.



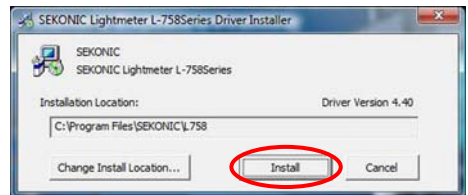
- 4) When the screen to the right is displayed, select [English] in the dropdown list. Click the [Install] button.



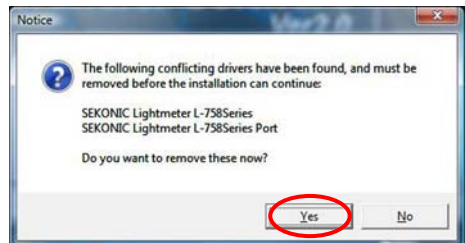
◆ NOTE!

If you select a language that differs from that of the OS on your PC, *Data Transfer Software* can be installed, but corrupted characters may be displayed. If you accidentally install the wrong language version of *Data Transfer Software*, first uninstall it and then re-install the correct language version. For information about uninstalling the software, see "[4] Uninstalling the software". (See page 19.)

5) Click the [Install] button.



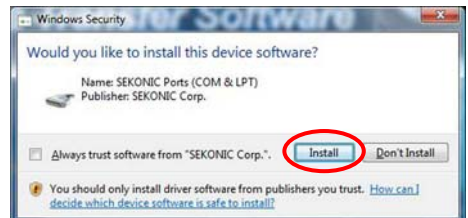
* The screen to the right is displayed if earlier *Data Transfer Software* drivers remain. Click the [Yes] button.



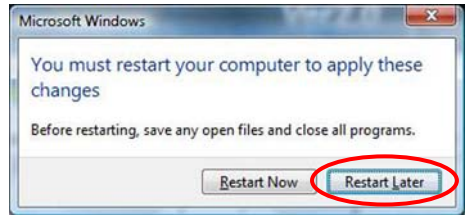
6) Click the [Install] button.



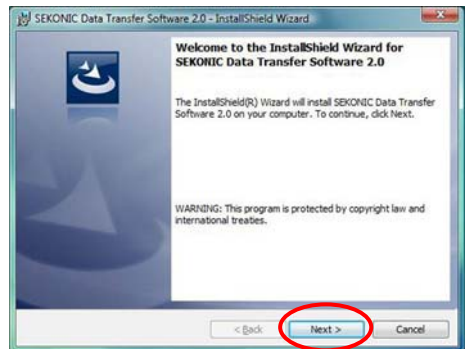
7) Click the [Install] button.



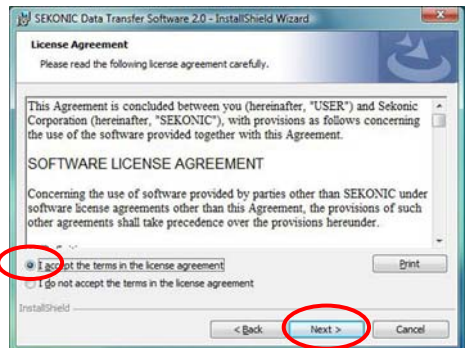
- 8) To continue installing the application software, click the [Restart Later] button.



- 9) Next, install *Data Transfer Software*. To continue, click the [Next] button.



- 10) If you agree with the terms of the license agreement, select "I Agree" and then click [Next]. You cannot proceed if you select "I Do Not Agree".

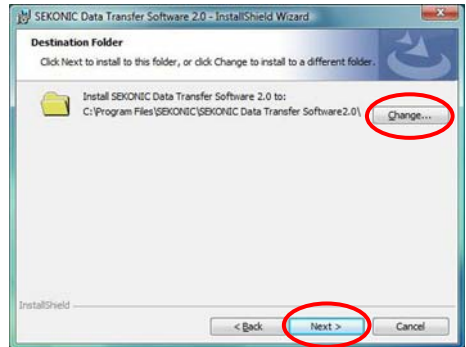


◆ Reference

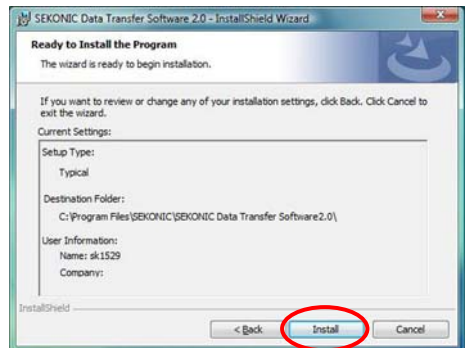
If the installer does not start automatically, double-click "AutoRun" on the CD-ROM.



11) Confirm that you are installing the software in the desired folder, and then click the [Next] button. If you want to change to a different folder, click the [Change] button and then select the folder you want.



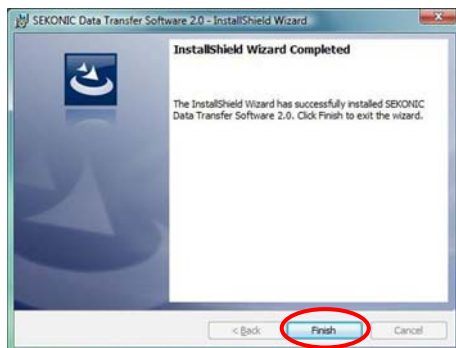
12) You are now ready to install *Data Transfer Software*. To continue, click the [Install] button.



13) A screen showing the progress of the *Data Transfer Software* installation is displayed.



- 14) This completes installation of *Data Transfer Software*.
Click the [Finish] button.



◆ **NOTE!**

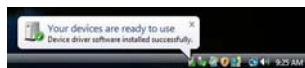
Depending on your operating system, your computer may prompt you to restart after you have installed the software.
If you are prompted to restart, restart your computer immediately.

- 15) If this is the first time you are connecting the light meter to your computer, proceed to Step 16.
Install the hardware that is necessary for recognizing the light meter. For information about connecting the light meter to your computer, see "3. Basic Operation". (See page 20.)
Please also note that in the following installation, depending on the OS, environment and conditions, the displays in Steps 16 and beyond may not appear or their content may be different.

- 16) The screen to the right is displayed. Click the display area.



- 17) The screen to the right is displayed, and the installation is finished.



◆ **NOTE!**

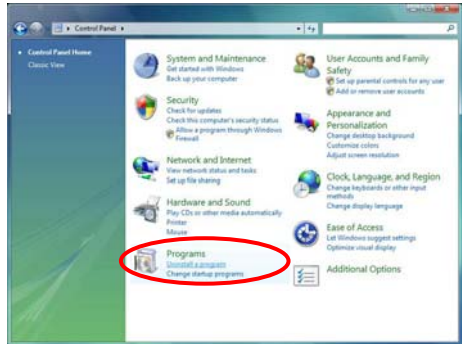
Whenever you connect or disconnect the USB cable, be sure to do so in the proper sequence.
Disconnecting the USB cable while data is being transferred may result in the loss of data or circuit damage.

4) Uninstalling the software

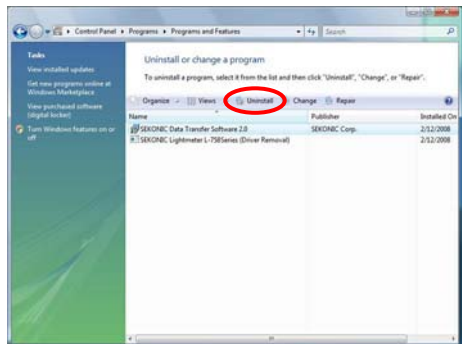
◆ NOTE!

Perform the following procedure only if you no longer want *Data Transfer Software* installed on your computer.

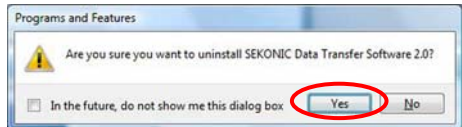
- 1) Quit all applications that are currently running on your computer.
- 2) From "My Computer," open Control Panel and then double-click "Uninstall a program".



- 3) Select "Data Transfer Software" and then click [Uninstall].



- 4) Click [Yes] in the confirmation screen that appears.



- 5) This indicates that uninstallation was successful.

◆ Reference

The profile data remains even if the application is uninstalled.

If you want to completely delete the profile data, select [Delete Profiles] before uninstalling the application.

3. Basic Operation

(1) How to connect the light meter to your computer

- 1) Ready the USB cable included with the product.

◆ **NOTE!**

Be sure to use the USB cable included with the product (1m).



- 2) Connect the USB cable to your computer.

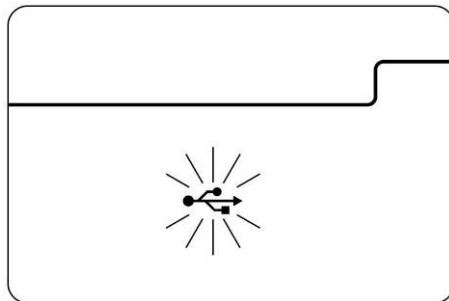


- 3) Check that the light meter is turned off.

- 4) Connect the USB cable to the light meter.



- 5) Turn on the light meter.
If everything is connected properly, a USB icon will flash on the light meter LCD screen.



◆ Reference

When you are transferring data, the USB icon stays lit rather than flashing.

- 6) Connection is now complete.
Start *Data Transfer Software* in one of the ways described below.

- Macintosh version
Click the *Data Transfer Software* icon in the dock on the desktop.



- Windows version
Double-click the icon (shown to the right) on your desktop.



◆ NOTE!

When *Data Transfer Software* is running and the light meter is on, do not disconnect the USB cable.

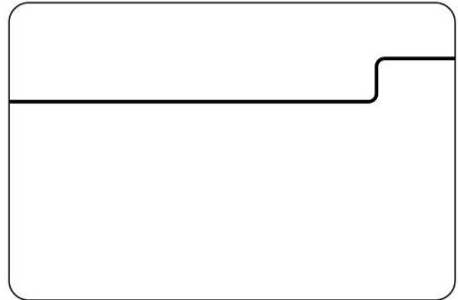
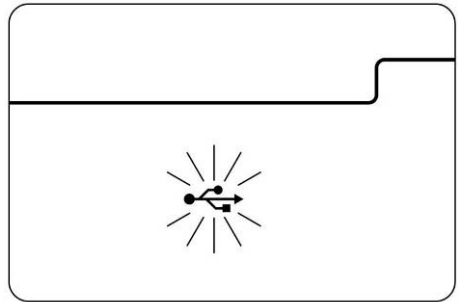
If you do, *Data Transfer Software* may not operate properly when you reconnect the cable.

If a communication error occurs, first quit *Data Transfer Software*, follow the instructions in "(1) How to connect the light meter to your computer" to reconnect the USB cable, and start *Data Transfer Software* again.

(See page 20.)

(2) How to disconnect the light meter from your computer

- 1) Quit the *Data Transfer Software* application.
- 2) Turn off the light meter. The USB icon disappears from the LCD screen.
- 3) Disconnect the USB cable from the light meter.
- 4) Disconnect the USB cable from the computer.



◆ NOTE!

To ensure that the light meter remains water-tight, be sure to close the USB port cover whenever you are not using the meter.

4. Data Transfer Software Operations

(1) Screens and functions

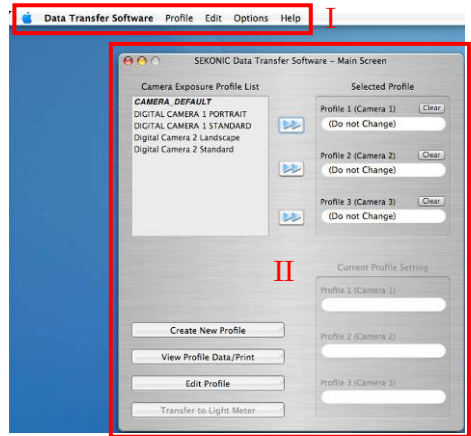
(The screens from the Macintosh version are used in the following explanation.)

When you start up *Data Transfer Software*, the menu bar [I] and the Main screen [II] are displayed.

You can use the menu bar not only to perform operations in the Main screen, but also to perform other operations such as importing and exporting camera exposure profiles, backing up camera exposure profile data from the light meter and calling up the software guide.

You can perform the following frequently used operations in the Main screen.

- [1] Create New Profiles
- [2] View Profile Data/ Print
- [3] Edit Profiles
- [4] Transfer to Light Meter



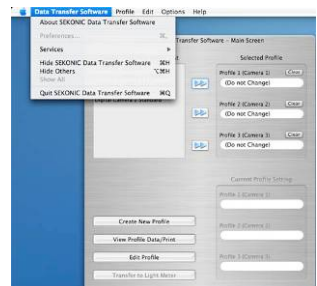
(2) Menu bar and functions

The menu bar contains five menus.

1) Data Transfer Software

This menu contains the basic *Data Transfer Software* operation commands.

1. About SEKONIC Data Transfer Software
Shows the version and system information for *Data Transfer Software* you are using.
2. Quit SEKONIC Data Transfer Software
Quits *Data Transfer Software*.



◆ Reference

These commands are in the following locations in the Windows version.

About SEKONIC Data Transfer Software: Menu bar – Help
Exit SEKONIC Data Transfer Software: Menu bar – Profiles

2) Profiles

Contains general operation commands for camera exposure profiles.

1. Create New Profile

Allows you to create a camera exposure profile.
(Same operation as the **Create New Profile** button in the **Main screen**)

2. View Profile Data/Print

Allows you to check and print the camera exposure profile data you created.
(Same operation as the **View Profile Data/Print** button in the **Main screen**)

3. Edit Profile

Allows you to edit the camera exposure profile you created.
(Same operation as the **Edit Profile** button in the **Main screen**)

4. Data Transfer to Light meter

Allows you to transfer the camera exposure profile you created to the light meter.
(Same process as the **Data Transfer to Light meter** button in the **Main screen**.)

5. Import

Use this command to add the camera exposure profile you created in *Data Transfer Software* on a different computer to the Camera Exposure Profile List in *Data Transfer Software* on the computer you are using.

6. Export

Use this command to copy the camera exposure profile you created in *Data Transfer Software* to a different computer.

7. Delete

Allows you to delete a camera exposure profile.
You can start the same operation by selecting the camera exposure profile in the **Camera Exposure Profile List** in the **Main screen** and right-clicking it (or holding down the “ctrl” key and clicking it).

8. Rename

Allows you to change the name of a camera exposure profile.
You can start the same operation by selecting the camera exposure profile in the **Camera Exposure Profile List** in the **Main screen** and right-clicking it (or holding down the “ctrl” key and clicking it).



3) Edit Profile

Contains commands that help input operations in the camera exposure profile name input screen.

1. Cut

Allows you to cut some of the characters that have been entered in the camera exposure profile name input screen.

You can start the same operation by clicking a camera exposure profile in the screen that allows you to select a camera exposure profile name and right-clicking it (or holding down the “ctrl” key and clicking it).

2. Copy

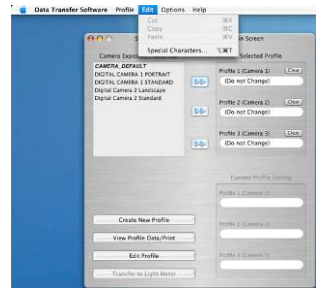
Allows you to copy some or all of the characters that have been entered in the camera exposure profile name input screen.

You can start the same operation by clicking a camera exposure profile in the screen that allows you to select a camera exposure profile name and right-clicking it (or holding the “ctrl” key and clicking it).

3. Paste

Allows you to paste the characters that were cut or copied in the camera exposure profile name input screen.

You can start the same operation by clicking a camera exposure profile in the screen that allows you to select a camera exposure profile name and right-clicking it (or holding the “ctrl” key and clicking it).



4) Options

Contains option functions in *Data Transfer Software*.

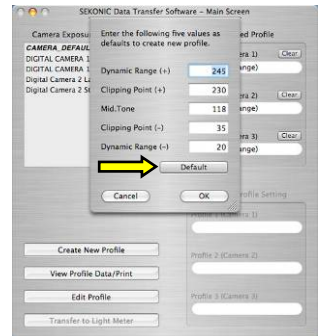
1. Defaults of Calculation Setting Change

Allows you to change the default values for Dynamic Range (+), Clipping Point (+), Middle Tone, Dynamic Range (-) and Clipping Point (-) when you create a new camera exposure profile.

Click the level value for the item you want to change, and enter the prescribed level value from the keyboard.

Note that you can click the **Defaults** button to return the settings to the Sekonic standard values.

Click the **OK** button after you have changed the settings to enable the settings and return to the **Main screen**.



◆NOTE!

If you changed the Dynamic Range/Clipping Point settings in Advanced mode or by changing the exposure range, only the selected camera exposure profile is changed.

Note that the default level value always takes precedence when you create a new camera exposure profile.

2. Save Backup Profile to Computer

Loads the data from the camera exposure profile set in the light meter onto the computer and saves it.

3. Transfer Backup Profile to Light meter

Loads the data from the camera exposure profile saved on the computer and transfers it to the light meter..

You can use this command on data from a camera exposure profile created in an earlier version of *Data Transfer Software*.

◆NOTE!

Backup profiles are in a different file format (“.csv” extension) than camera exposure profiles created in *Data Transfer Software* (“.sp” extension) so that they can be transferred to the light meter, so be aware of the following points.

- Three camera exposure profiles on the light meter are managed as a single file. (You cannot manage only the camera exposure profiles you want.)
- You can check the data in a backup profile, but you cannot edit it.
- You cannot create characteristic curve graphs from the data in a backup profile.
- Profiles created in older versions of *Data Transfer Software* are in the same CSV format as files after they have been transferred to the light meter. Therefore, if you want to transfer a profile created in an older version of *Data Transfer Software* to the light meter, use Transfer Backup Profile.

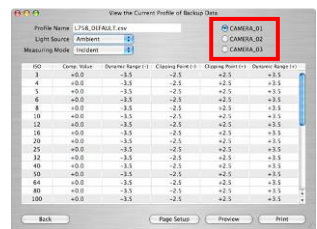
4. View the Current Profile of Backup Data

Allows you to display and print details of a camera exposure profile that was backed up onto a computer from the light meter in a table.

In the area outlined in red in the figure to the right, you can switch the camera exposure profile to be displayed.

Display and print the following settings for the camera exposure profile shown in the table.

- 1)Compensation Value
- 2)Clipping Point (+)
- 3)Dynamic Range (+)
- 4)Dynamic Range (-)
- 5)Clipping Point (-)



◆NOTE!

All of the settings in the camera exposure profile displayed in the screen are displayed using one of four combinations of light source type (ambient or flash) and measurement method (incident light or reflected light).

Check the light source type and measurement method for the data being displayed in the screen.

5. Reset of Profile in Light meter

Allows you to return a camera exposure profile in the light meter to the Sekonic standard values.

Name	Standard Value
Clipping Point (+)	+3.5
Dynamic Range (+)	+2.5
Compensation Value	0.0
Dynamic Range (-)	-2.5
Clipping Point (-)	-3.5

5) Help

Allows you to view the Software Guide (electronic version of this guide).



(3) Main screen and functions

The **Main screen** is the basic operations screen that is displayed when you start up *Data Transfer Software*.

1) Create New Profile

Allows you to create a camera exposure profile.

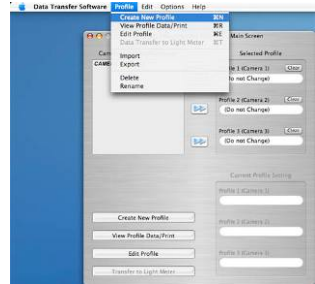
You can create a camera exposure profile using one of the following two modes.

◆ Quick Mode

Creates a camera exposure profile from test exposure data containing light meter measurements for a single light source (ambient or flash) and a single ISO.

◆ Advanced Mode

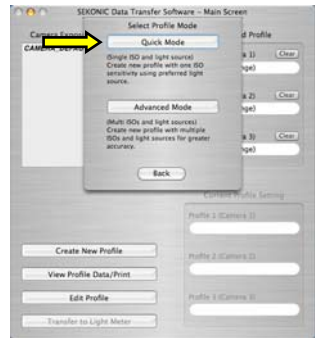
Creates a more accurate camera exposure profile from test exposure data containing light meter measurements for each type of light source and each ISO.



(1) Quick Mode

Click the **Create New Profile** button in the **Main screen**.

The **Select Profile Mode** screen is displayed. Click the **Quick Mode** button.

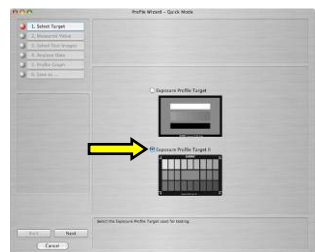


1. Select Target

Select the exposure profile target used for the test exposure.

Click the button in front of the target name to select it.

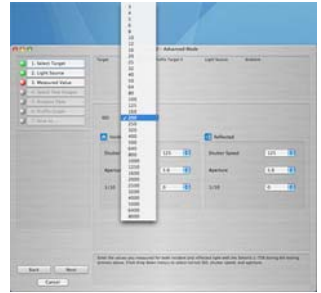
Click the **Next** button after you have made your selection.



2. Measured Value

Enter the standard exposure values measured using the light meter when you took the test shooting.

Select the ISO sensitivity, the incident / reflected light and the measurements (shutter speed, aperture, 1/10 step measurements) from the pull-down menus.



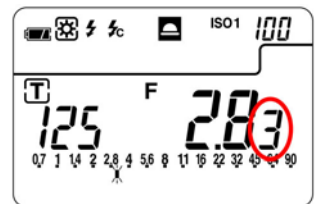
Click the **Next** button after you have made all of your selections.

◆NOTE!

Be sure to either enter or check the measurements from the light meter. The differences between the light meter values and the exposure data from the test exposure are calculated as compensation values, so if you transfer a camera exposure profile in which the wrong measurements were entered, the measured values for the light meter will change.

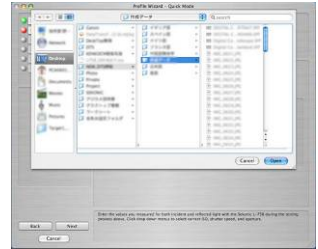
◆Reference

The 1/10 step measurement is the fraction displayed in the aperture value area of the light meter.



3. Select Test Images

Select the folder that contains the test images of the digital camera used to make the camera exposure profile, and click the **Open** button.



The image data is displayed as thumbnails in the folder. Select the necessary images. Click in the white square in the top right of the thumbnail image to select it. A checkmark is displayed in the white square in the selected thumbnail image.

- * If you selected Exposure Profile Target II, select **three** images (standard exposure, +3EV, -3EV).
- * If you selected Exposure Profile Target, select **eleven** images (standard exposure, 1 EV steps from +5EV through -5EV).



Once you select necessary images, **Next** button will be selectable and makes it possible to make another selection.

If you have selected the correct images, click the **Next** button.

◆ Reference

The image formats that can be loaded are JPEG and TIFF. (RAW data cannot be loaded.)

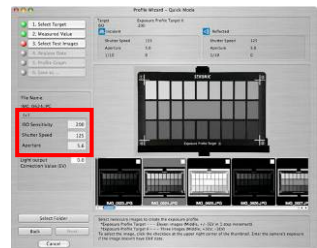
If you selected the wrong folder, click the **Browse** button and reselect the folder containing the test exposure data.

Note that it is easier to select images if you separate the test shooting images by saving in separate folders by each ISO and light source.

◆ Reference

When you click a thumbnail image, a preview is displayed and Exif information is displayed on the left side of the screen. Check the Exif information as you select your images.

If you select an image in which Exif information is not embedded, a screen for entering image exposure conditions appears.

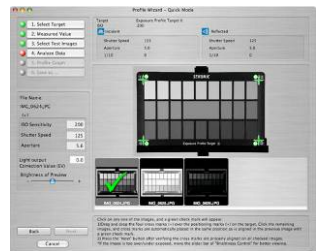


4. Analyze Data

Specify the range on the test image for automatically loading patch densities.

Click the thumbnail for the image for specifying the range. (A green checkmark appears in the center of the thumbnail.)

Drag and drop four cross marks in the center of the image displayed in the preview window over the positioning marks ① through ④ in the four corners of the Exposure profile target of test image.



◆ Reference

If you cannot see the cross marks in the four corners because the test image is too overexposed or underexposed, use the **Brightness of Preview** slider to adjust the preview.

Set the range for all of the images using the same procedure. If you selected Exposure Profile Target II, you select **three** images, and if you selected Exposure Profile Target, you select **eleven** images. In either case, it becomes possible to select the **Next** button once you set the range on the necessary images.

When you click the **Next** button, image analysis starts and the characteristic curve is calculated.



◆ Reference

The cross marks are automatically placed in the same position as is aligned in the previous image. If the position of test image remains the same, you can easily set the range by selecting the thumbnail images as is.

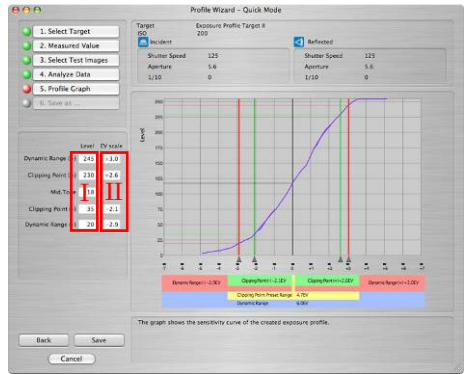
We recommend that you fix the exposure profile target in place during the shooting.

5. Profile Graph

Shows a graph of the sensitivity curve from the test image data.

In the area of **[I]**, the level value (under 8-bit) for each setting is displayed.

In the area of **[II]**, the distances from the Middle Tone to the dynamic ranges and the clipping points are displayed in the EV values.

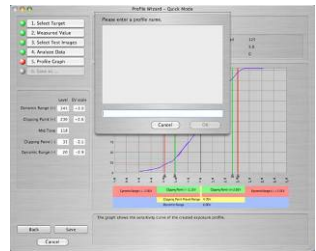


6. Save as ...

To save the camera exposure profile you created, click the **Save** button.

Next, the file name input dialog is displayed, so after entering the file name, click the **OK** button.

After the profile is saved, the screen returns to the **Main screen**.



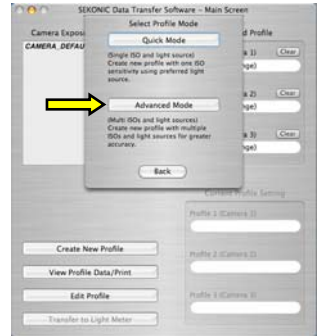
◆ NOTE!

- * Only single-byte alphanumeric characters are valid for use in camera exposure profile names. You can enter up to 31 characters for the file name.
- * The profile names are listed in the following order in Camera Exposure Profile List.
 - 1) Numbers, 2) Alphabetic characters (priority to upper case characters)
 - 3) Other characters>>>They do not appear in order by creation date.
- * In this **Quick Mode**, the exposure profiles created using a single ISO and a single light source, are also all reflected in other ISOs and light sources.

(2) Advanced Mode

Click the **Create New Profile** button in the **Main screen**.

The “Select Profile Mode” screen is displayed. Click the **Advanced Mode** button.

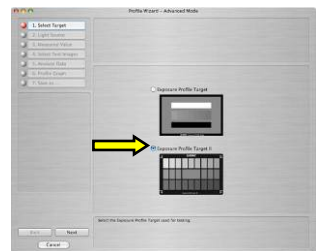


1. Select Target

Select the exposure profile target used for the test exposure.

Click the button in front of the target name to select it.

Click the **Next** button after you have made your selection.

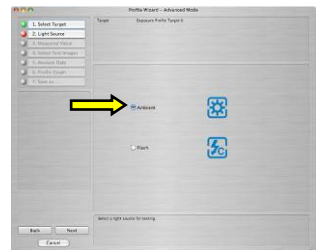


2. Select Light Source

Select the light source (ambient or flash) used in the test shooting.

Click the button in front of the light source name to select it.

Click the **Next** button after you have made your selection.



3. Measured Value

Enter the standard exposure values measured using the light meter when you took the test shooting.

Select the ISO sensitivity, the incident / reflected light and the measurements (shutter speed, aperture, 1/10 step measurements) from the pull-down menus.

Click the **Next** button after you have made all of your selections.

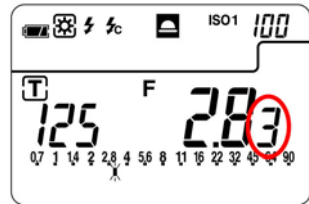


◆NOTE!

Be sure to either enter or check the measurements from the light meter. The differences between the light meter values and the exposure data from the test exposure are calculated as compensation values, so if you transfer a camera exposure profile in which the wrong measurements were entered, the measured values for the light meter will change.

◆Reference

The 1/10 step measurement is the fraction displayed in the aperture value area of the light meter.

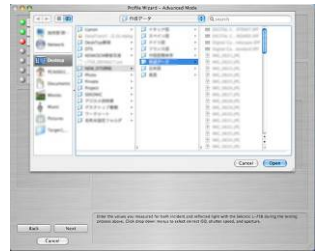


4. Select Test Images

Select the folder that contains the test images of the digital camera used to make the camera exposure profile, and click the **Open** button.

The image data is displayed as thumbnails in the folder. Select the necessary images. Click in the white square in the top right of the thumbnail image to select it. A checkmark is displayed in the white square in the selected thumbnail image.

- * If you selected Exposure Profile Target II, select **three** images (standard exposure, +3EV, -3EV).
- * If you selected Exposure Profile Target, select **eleven** images (standard exposure, 1 EV steps from +5EV through -5EV).

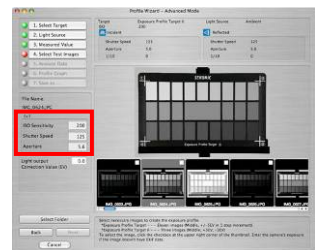


Once you select necessary images, **Next** button will be selectable and makes it possible to make another selection.

If you have selected the correct images, click the **Next** button.

◆ Reference

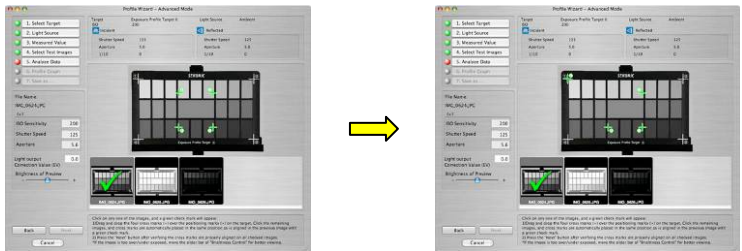
- * The image formats that can be loaded are JPEG and TIFF. (RAW data cannot be loaded.)
- * If you selected the wrong folder, click the **Browse** button and reselect the folder containing the test exposure data. Note that it is easier to select images if you separate the test shooting images by saving in separate folders by each ISO and light source.
- * When you click a thumbnail image, a preview is displayed and Exif information is displayed on the left side of the screen. Check the Exif information as you select your images. Note that if you select an image in which Exif information is not embedded, a screen for entering image exposure conditions appears.



5. Analyze Data

Specify the range on the test image for automatically loading patch densities. Click the thumbnail for the image for specifying the range. (A green checkmark appears in the center of the thumbnail.)

Drag and drop four cross marks in the center of the image displayed in the preview window over the positioning marks ① through ④ in the four corners of the Exposure profile target of test image.



◆ Reference

If you cannot see the cross marks in the four corners because the test image is too overexposed or underexposed, use the **Brightness of Preview** slider to adjust the preview.

Set the range for all of the images using the same procedure. If you selected Exposure Profile Target II, you select **three** images, and if you selected Exposure Profile Target, you select **eleven** images. In either case, it becomes possible to select the **Next** button once you set the range on the necessary images.



When you click the **Next** button, image analysis starts and the characteristic curve is calculated.

◆ Reference

The cross marks are automatically placed in the same position as is aligned in the previous image. If the position of test image remains the same, you can easily set the range by selecting the thumbnail images as is.

We recommend that you fix the exposure profile target in place during the shooting.

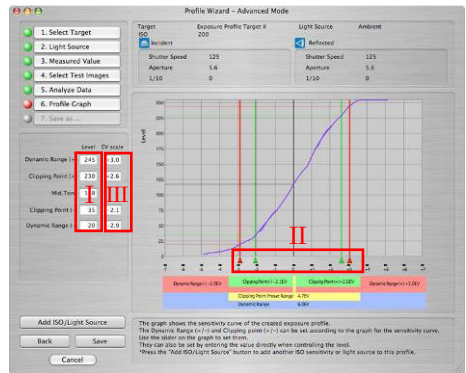
6. Profile Graph

Shows a graph of the sensitivity curve from the test image data.

In the area of [I], the level value (under 8-bit) for each setting is displayed.

If you directly enter the level value from the keyboard, you can change the exposure range.

The triangle cursors in the sensitivity curve graph [clipping point (+/-) and dynamic range (+/-) points] move in response to the level value you enter, and the EV scale value changes as well.



If you click the mouse on the triangle cursors [clipping point (+/-) and dynamic range (+/-) points] in the area of [II], you can drag and drop them to change the exposure range.

The level value and the EV scale change according to the new positions of the triangle cursors.

In the area of [III], the difference in the number of exposure steps (EV scale) from the Middle Tone is displayed. You can change the exposure range by directly entering the difference in the number of exposure steps (EV scale) from the keyboard.

The level value as well as the triangle cursors on the sensitivity curve graph move according to the difference in the number of steps (EV scale) that is entered.

◆ NOTE!

The size relationship between the five points is in order from dynamic range (-) \leq clipping point (-) \leq Middle Tone \leq clipping point (+) \leq dynamic range (+), so the level value input or the cursor movement cannot deviate from this order.

◆ Reference

- * The operations in [I], [II] and [III] in the sensitivity curve graph display screen are mutually connected.
If you make a change to one of them, the result is reflected in all of them.
- * A rough summary of the dynamic range and clipping point settings is given below.
 - 1) Dynamic range: Range of the number of exposure steps that can be reproduced on the digital camera being used, from the shadow areas to the highlight areas. Set the highest value in Dynamic range (+) and set the darkest shadow value in Dynamic range (-).
 - 2) Clipping point : Area where the contrast between light and dark in an image is clear with respect to the changes in EV values. Set the two end points in the area on the sensitivity curve graph where the slope of the curve is linear (straight line). Note that the change between light and dark in the image (contrast) between the dynamic range and the clipping point is more gradual with respect to the changes in EV values.
 - * If you need to consider standards for printing, you can set the level values that can be rendered during printing in the clipping points, and set the dynamic ranges outside of clipping points.
- * It is easier to use the triangle cursors (4) to set the level values at the clipping points and dynamic ranges based on the characteristic curve graph.
- If the clipping points and dynamic ranges are decided in advance, it is convenient to set by entering numbers directly

7. Add ISO/Light Source

You can click the **Add ISO/Light Source** button to add the data of different ISOs and light sources to the camera exposure profile currently being created in order to increase the accuracy of the profile.

To add the data, click the **Add ISO/Light Source** button.

◆ NOTE!

- * In **Advanced Mode**, profiles created with only one ISO and light source are also all reflected in the other ISOs and light sources. By using **Add ISO/Light Source**, you turn the profile created from the test image into actual measured values, and profiles with ISOs in between are automatically calculated, which increases the accuracy.

◆ Reference

When you select **Add ISO/Light Source**, you are repeating the operations from “2. Select Light Source” to enter the data.

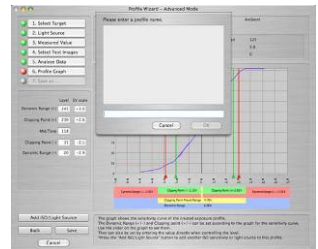
- * While you are adding a profile, the ISO displayed in blue characters in the pull-down menu displayed in the “3.Measured Value” screen indicates that exposure profile data already exists. (In the Windows version, a red checkmark is placed Next to the ISO.)

8. Save

To save the camera exposure profile you created, click the **Save** button.

Next, the file name input dialog is displayed. Enter the file name and click the **OK** button.

After the profile is saved, the screen returns to the **Main screen**.



◆ NOTE!

- *Only single-byte alphanumeric characters are valid for use in camera exposure profile names.

You can enter up to 31 characters for the file name.

- *The profile names are listed in the following order in Camera Exposure Profile List.

- 1) Numbers
- 2) Alphabetic characters (priority to upper case characters)
- 3) Other characters

>>>They do not appear in order by creation date.

2) View Profile Data/Print

Allows you to check and print the camera exposure profile data you created.

You can view and print camera exposure profiles using one of the following two View/Print modes.

◆ Single profile

Allows you to display a data table and a graph for a single camera exposure profile to view or print.

◆ Multiple profiles

Allows you to display sensitivity curves for multiple camera exposure profiles in the same graph to view or print.

You can also display sensitivity curves for each ISO in a single camera exposure profile in the same graph to view or print.

(1) Single Profile

Click the **View Profile Data/Print** button in the **Main screen**.

The Select Profile screen is displayed. Click the **Single Profile** button.

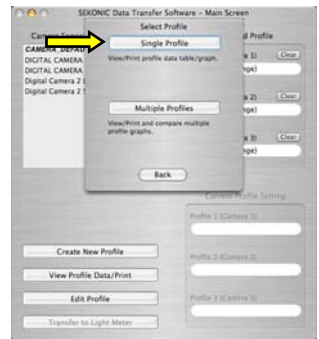
In "Single Profile" there are "Data Table" and "Graph" screens.

◆ Data Table

Allows you to check a list of the data to be transferred to the light meter.

◆ Graph

Allows you to visually check a camera exposure profile using a sensitivity curve graph.

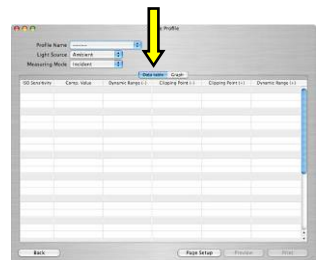


1. Data Table display

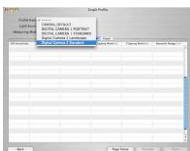
Select the profile you want to view in Profile Name.

Select the camera exposure profile from the **Profile Name** pull-down menu.

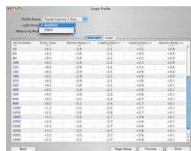
Then make selections in **Light Source**, **Measuring Mode**.



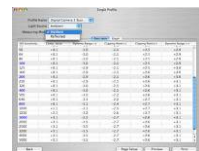
Select Profile Name



Select Light Source



Select Measuring Mode



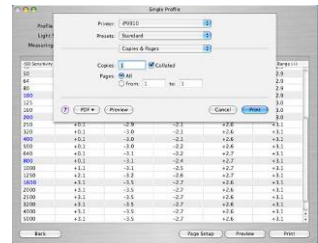
To print, click the **Print** button.

To continue, follow the instructions for your printer.

Click the **Page Setup** button to make print settings.

To continue, follow the instructions for your printer to make the settings.

Click the **Preview** button to preview the print.



◆ Reference

The ISOs in blue in the “Data Table” and “Graph” screens are actual measurements calculated from the test image data.

(In the Windows version, a red checkmark is placed next to the ISO.)

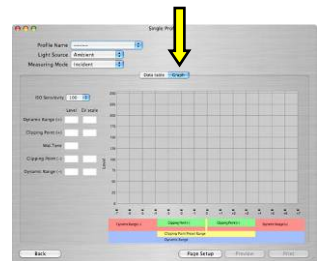
The ISOs in black are calculated values obtained through simulation.

2. Graph display

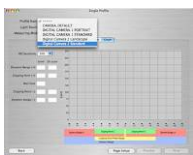
Select the profile you want to view in "Profile Name".

Select the camera exposure profile from the **Profile Name** pull-down menu.

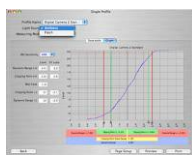
Then make selections in **Light Source**, **Measuring Mode** and **ISO sensitivity**.



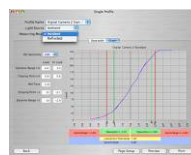
Select Profile Name



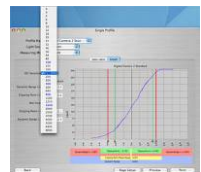
Select Light Source



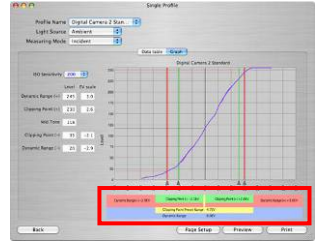
Select Measuring Mode



Select ISO Sensitivity



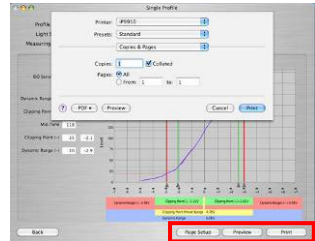
The widths of the dynamic range and the clipping point in the camera exposure profile are indicated by the number of exposure steps (EV scale) at the bottom of the graph.



To print, click the **Print** button. To continue, follow the instructions for your printer to print.

Click the **Page Setup** button to make print settings.

To continue, follow the instructions for your printer to make the settings.



Click the **Preview** button to preview the print.

◆ Reference

The graph of the measured values obtained from the exposure data is displayed in solid lines, and the graph of the calculated values obtained through simulation is displayed in dotted lines.

The simulation calculates the difference in EV between two ISOs with actual measurements when a difference in EV in the dynamic range and clipping point occurs between two ISOs so that the change is uniform.

(2) Multiple Profiles

Click the **View Profile Data / Print** button in the **Main screen**.

The **Select Profile** screen is displayed. Click the **Multiple Profiles** button.

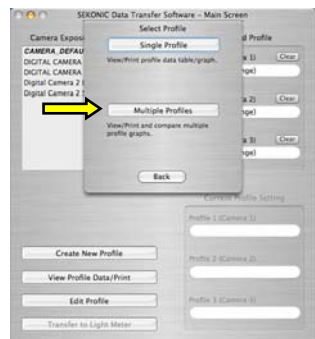
In Multiple Profiles there are **Camera Comp** and **ISO Comp** screens.

◆ Camera Comparison

Allows you to display and compare the sensitivity curves from multiple camera exposure profiles in the same graph.

◆ ISOs Comparison

Allows you to display and compare the sensitivity curves for each ISO in a single camera exposure profile in the same graph.

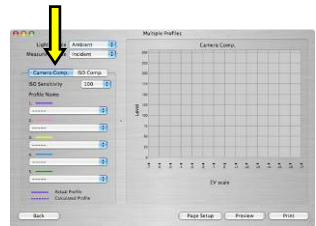


1. Camera Comparison display

Make selections in the **Light Source**, **Measuring Mode** and **ISO sensitivity** pull-down menus.

Then select the camera exposure profiles you want to compare in the **Profile Name** pull-down menu.

You can compare up to five camera exposure profiles.



To print, click the **Print** button. To continue, follow the instructions for your printer to print.

Click the **Page Setup** button to make print settings.

To continue, follow the instructions for your printer to make the settings.



Click the **Preview** button to preview the print.

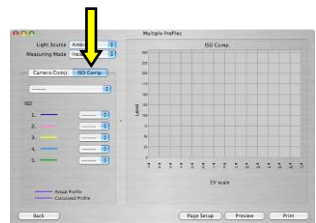
2. ISOs Comparison display

Select the comparison conditions from the **Light Source** and **Measuring Mode** pull-down menus.

Next, select the camera exposure profile for which you want to compare ISOs in the **Profile Name** pull-down menu.

Then select the ISOs you want to compare in the "ISO" pull-down menu.

You can display up to five ISOs at the same time.



To print, click the **Print** button. To continue, follow the instructions for your printer to print.

Click the **Page Setup** button to make print settings.

To continue, follow the instructions for your printer to make the settings.



Click the **Preview** button to preview the print.

3) Edit Profile

Allows you to edit a camera exposure profile.

You can edit a camera exposure profile using one of the following two modes.

- ◆ **Change Exposure Range**

Allows you to change the clipping point (+/-) and the dynamic range (+/-) for the camera exposure profile you created.

- ◆ **Add ISO/Light Source**

Allows you to add other light sources and ISOs exposure data to a camera exposure profile you already created to increase the accuracy of your profile.

(1) Change Exposure Range

Allows you to change the clipping point and dynamic range settings while viewing the sensitivity curve graph.

Click the **Edit Profile** button in the **Main screen**.

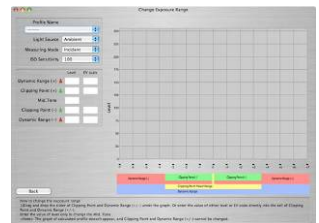
The **Select Edit Mode** screen is displayed. Click the **Change Exposure Range** button.



1. Select the camera exposure profile.

Select the camera exposure profile whose exposure range you want to change in the **Profile Name** pull-down menu.

Then make selections in **Light Source**, **Measuring Mode** and **ISO sensitivity**.



- ◆ **NOTE!**

The exposure range changes are made to the actual measurements, so only the actual measurement graph is displayed. The ISOs in blue are actual measurements analyzed from the test images.

(In the Windows version, a red checkmark is placed next to the ISO.)

2. Change the exposure range

The sensitivity curve graph for the camera exposure profile is displayed.

In [I], the preset level value (0 to 255) under the 8-bit is displayed.

If you directly enter the level value from the keyboard, you can change the exposure range.

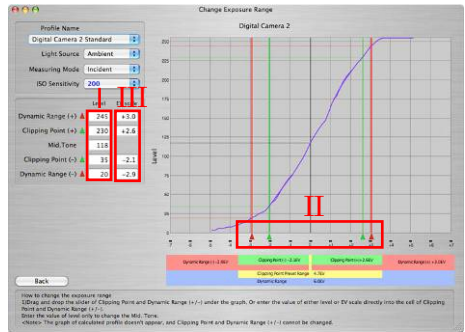
The triangle cursors in the sensitivity curve graph (clipping point +/- and dynamic range +/-) move in response to the level value you enter, and the EV scale value changes as well.

If you click the mouse on the triangle cursors (clipping point +/- and dynamic range +/-) in the area of [II], you can drag and drop them to change the exposure range.

The level value and the EV scale change according to the new positions of the triangle cursors.

In the area of [III], the difference in the number of exposure steps (EV scale) from the Middle Tone is displayed. You can change the exposure range by directly entering the difference in the number of steps from the keyboard.

The level value as well as the triangle cursors on the sensitivity curve graph move according to the difference in the number of steps that is entered.



◆NOTE!

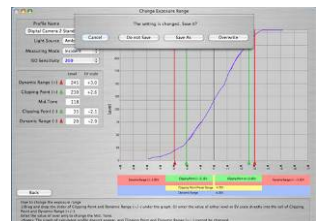
The size relationship between the five points is in order from dynamic range (-) \leq clipping point (-) \leq Middle Tone \leq clipping point (+) \leq dynamic range (+), so the level value input or the cursor movement cannot deviate from this order.

3. Finish changing the exposure range.

When you click the **Return** button, a save confirmation dialog is displayed.

To save the settings, select either **Save** or **Save As**.

If you do not want to save the settings, select either **Don't Save (Quit Without Saving)** or **Cancel (Return to Change Exposure Range Screen)** to finish.



(2) Add ISO/Light Source

Click the **Edit Profile** button in the **Main screen**.

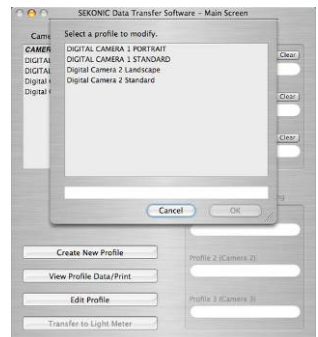
The **Select Edit Mode** screen is displayed. Click the **Add ISO/Light Source** button.



1. Select the camera exposure profile

The Select a profile to modify screen is displayed. Select the camera exposure profile with the different light source and ISO sensitivity you want to add, and click the **OK** button.

After this, the operations are the same as for creating a new profile in **Advanced Mode**. (See page 33.)



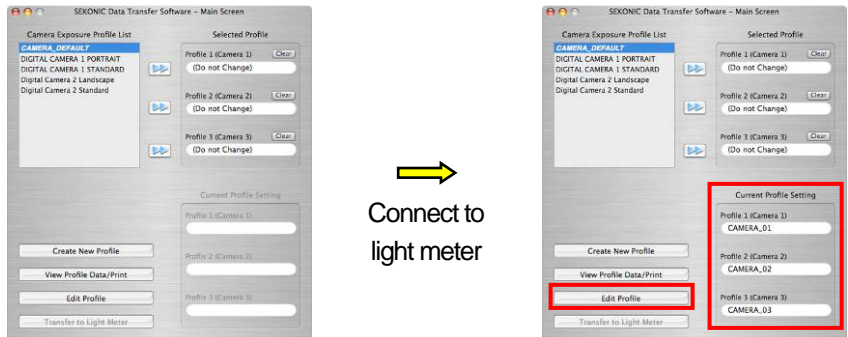
4) Transfer to Light meter

Transfer the camera exposure profile you created to the light meter.

1. Connect the light meter.


Connect the light meter to your computer with a USB cable, and then turn on the light meter.

The **Transfer to Light meter** button becomes active, and the camera exposure profiles set in the light meter are displayed in **Current Profiles Setting**.

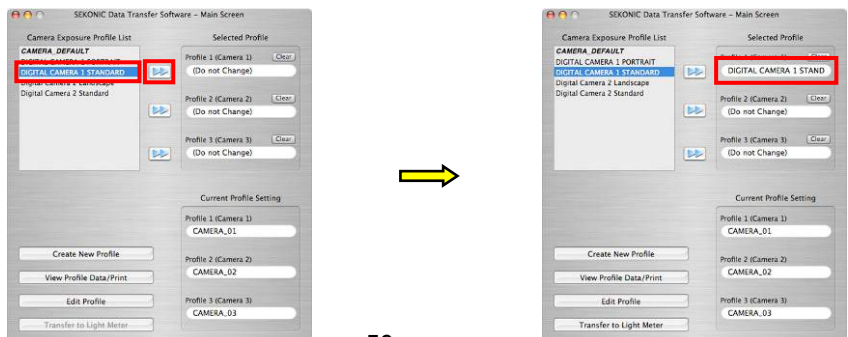
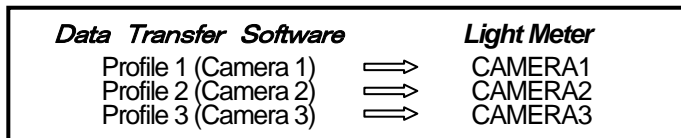


2. Select the camera exposure profile.

Click the camera exposure profile you want to set in the light meter in “Camera Exposure Profile List” in the **Main screen** to select it. (The selected camera exposure profile is highlighted in blue.)

Click the  button next to the camera exposure profile you selected to set it in as Profile 1 (Camera 1).

The *Data Transfer Software* settings are transferred to the light meter as shown below.

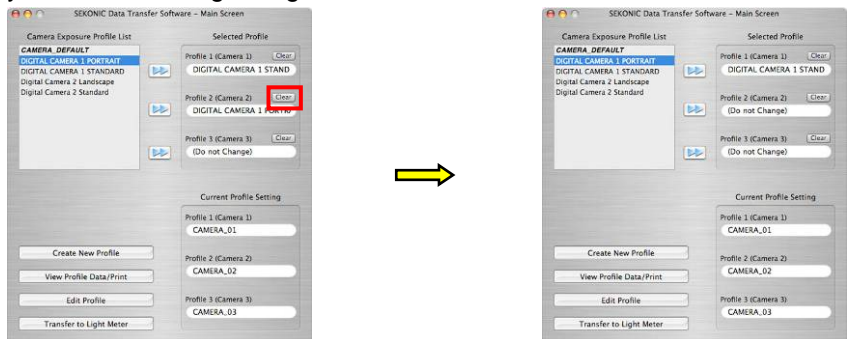


3. Cancel the selected camera exposure profile

If no camera exposure profiles are set, “(Keep unchanged)” is displayed in **Selected Profiles**.

If you do not want to change the settings made for CAMERA 1 to 3 in the light meter, leave the “(Do not change)” displays in **Selected Profiles** as is.

Note that you can go back to “(Do not change)” by clicking the **Clear** button if you make the wrong setting.



◆ Reference

It is not necessary to set all of the Profile 1 to 3 (Camera 1 to 3) in camera exposure profile transfer settings.

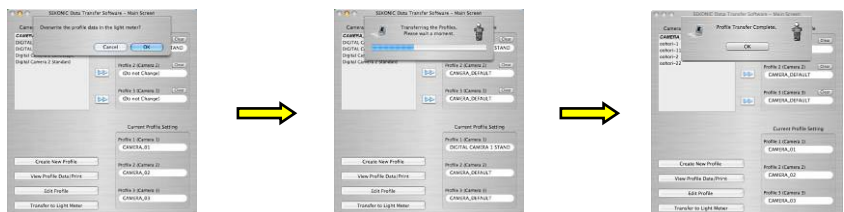
If you want to change only Camera 1 in the light meter, set a camera exposure profile in Profile1 (Camera 1) only, and transfer the settings with “Do not change” displayed in Profile 2 and 3 (Camera 2 and 3) as is.

4. Transfer to the light meter.

Click the **Transfer to Light meter** button.

A dialog is displayed, and a message saying “Overwrite the profile data in the light meter?” is displayed. Click the **OK** button to continue transferring the data.

If the data is transferred successfully, a dialog is displayed saying, “Profile transfer completed” to inform you that the transfer is complete. Click the **OK** button to finish.



5. Test Shooting

(1) Preparing your equipment

1) Prepare the following equipment for making the test shooting.

1. Camera and lens
The camera and lens that you shoot with most. If you shoot with several lenses you may want to create a profile for each lens.
2. Light meter
Digitalmaster L-758D/DR/CINE to make exposure measurements.
3. Exposure profile target
Exposure Profile Target or Exposure Profile Target II (Purchased separately. See next page)
4. Tripod
Sturdy tripod to mount camera and lens. The position of the Exposure Profile Target must be the same for all exposures to create a successful profile.
5. Light Stand
If suitable wall or surface is not available mount the Exposure Profile Target to a light stand.

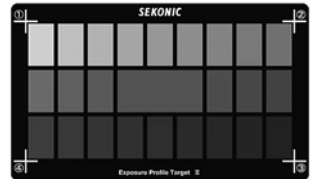
2) Exposure Profile Targets

The Exposure profile software is designed to work with either of two, specially-designed Exposure Profile Targets. The targets can be purchased separately from your local camera store or retail organization.

1.Exposure Profile Target II

Simpler to use, this target consists of a central 18% gray patch that is surrounded by 25 patches arranged in 1/6th stop values that are successively brighter and darker.

Profiling is done by taking three (3) exposures which include a standard exposure of the central 18% tone shot at the metered exposure and one shot that is -3EV below metered exposure and one shot that is +3EV above the metered exposure.



Gray Patch Scale



18% Gray Card

2.Exposure Profile Target

The more economical of the targets, it consists of 7 patches arranged in 1/6th stop decreasing reflectance. The patch set is surrounded by an 18% reflectance gray field with white and black bars above and below respectively.

Profiling is done by taking eleven (11) exposures which include a standard exposure metered from the 18% tone and 5 shots in successive 1EV steps above and below the metered exposure.



Gray patch scale



18% Gray Card

(2) Set up your equipment

- 1). Position your camera and tripod so that they are approximately 1 meter (1.1 feet) from the wall or light stand that holds the Profile Exposure Target.
- 2) Position the target so that the 18% percent surface is facing perpendicular to the camera. (When looking through the camera viewfinder, the target should almost completely fill the viewfinder frame.)

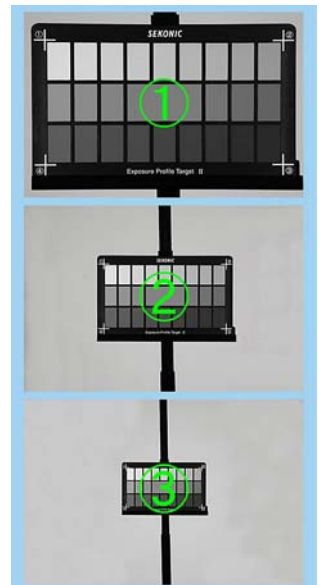


- 3) If using ambient “hot lights” or electronic flash equipment for illumination, set up the lights at a 45-degree angle in front of the Exposure Profile Target as shown in the illustration. Position the lights so that they are at the same height as the Exposure Profile Target and the camera.
- 4) Turn off your camera’s auto-focus system, anti-shake function and other compensation functions.
- 5) Perform a custom white balance according to your camera’s instruction manual using the 18% gray surface of the Exposure Profile Target.

- 6) Turn the Exposure Profile Target around so that the gray scale is facing perpendicular to the camera.

The best results will be achieved when the image in the viewfinder frame appears as figure 1. Figure 2 indicates the minimum size for a successful result (50% of the viewfinder). If the view appears as figure 3, the profile will not be successful.

- 7) Using your L-758D/DR/CINE meter’s incident reading mode with lumisphere extended, turn on the hot lights or test fire your electronic flashes to take a reading with the meter positioned at the center of the Target.



-
- 8) Then use the meter's contrast function and take readings at several points around the Target to check the uniformity of the lighting. Illumination readings over the entire surface of the Exposure Profile Target should not differ more than $\pm 0.1\text{EV}$.
 - 9) Set your camera to manual exposure mode. Set the camera's ISO to the one you want for calibration.

◆ Reference

For the best results, be sure to use the equipment that you actually use for shooting. Any change in the equipment, camera firmware, or lens used, may affect the outcome.

(3) Shooting Images

1) Determining exposure settings for ambient light

1. Hot Lights

- i. Set your L-758D/DR/CINE to a) incident light (with the extended lumisphere), b) ambient light mode c) select 1/30 second in shutter speed priority mode.
- ii. Take an incident light reading with the meter positioned in front of the 18% percent patch on the Exposure Profile Target.
- iii. For best results, the aperture reading should be at or near the middle setting of the lens you are using (ex. f/5.6) You may need to adjust the distance of the hot lights or shutter speed selected on the meter to achieve this aperture setting..
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program.
- iv. Under the same lighting conditions, set the meter to reflected light mode and take a reading of the central 18% reflectance patch with the meter located at the camera position.
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program.

2. Sunlight

- i. If using the sun for ambient illumination, it is best to shoot in diffused shade or slight over cast that will result in an exposure reading that is approximately f/5.6 (three stops smaller than maximum aperture) at a shutter speed of no more than 1/125 sec at ISO 100.

◆ Reference

- It is recommended to take incident meter readings to find a location that will assure the above condition is met. If shot in direct sunlight, you may have difficulty shooting the full exposure sequence.
- Shooting early or late in the day is not recommended as the lighting changes very quickly during this time.

- ii. Set your L-758D/DR/CINE to a) incident light (with the extended lumisphere), b) ambient light mode c) select 1/125 second in shutter speed priority mode.
- iii. Take an incident light reading with the meter positioned in front of the 18% percent patch on the Exposure Profile Target.
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program.
- iv. Under the same lighting conditions, set the meter to reflected light mode and take a reading of the central 18% reflectance patch with the meter located at the camera position.
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program.

◆NOTE!

- Using a shutter speed and aperture combination of approximately 1/125 at the lens' middle aperture setting will assure a range of camera settings that will allow the +/- 5EV bracket needed for the Exposure Profile Target or the +/-3EV bracket needed for the Exposure Profile Target II.

- Lens aperture settings

The Data Transfer Software (version 2.0) requires entering standard exposure settings when you create a camera exposure profile. If the lens you are using has a maximum aperture that is not a full, standard aperture, example f/2.5, round the number up to the next full aperture, example f/2.8. Then use this number when determining the shooting aperture for the lens. For a lens maximum aperture of f/2.8, the shooting aperture is f/8. (three stops smaller than maximum aperture)

Full stop aperture values are as follows:

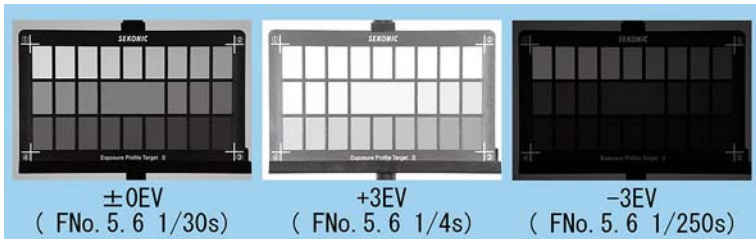
FNo. 0.5, 0.7, 1.0, 1.4, 2.0, 2.8, 4.0, 5.6, 8.0, 11, 16, 22, 32, 45, 64, 90, 128

3. Shooting a bracketed exposure sequence of the Exposure Profile Target

Transfer the exposure meter's incident light shutter speed and aperture settings to your camera. Take the first picture of the sequence at these settings to obtain that standard exposure.

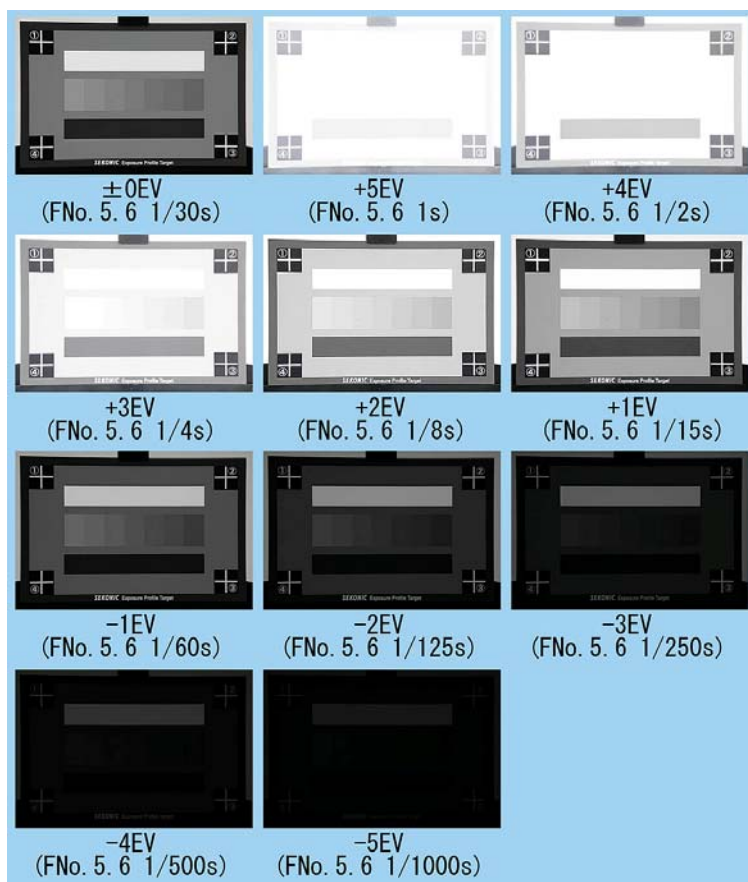
< Exposure Profile Target II >

- After shooting the standard exposure using the meter's incident light settings, manually change the camera shutter speed to shoot one shot at +3EV over the one used for the standard exposure. Then change the shutter speed to take one shot -3EV under the one used for standard exposure.
- The example below assumes meter settings and a standard exposure of f/5.6 at 1/30 second. Your settings might be different.



< Exposure Profile Target >

- After shooting the standard exposure using the meter's incident light settings, manually change the camera's shutter speed to shoot a range of exposures from +5EV to -5EV in 1 EV steps.
- The example below assumes meter settings and a standard exposure of f/5.6 at 1/30 second. Your settings might be different.



2) Determining exposure settings for electronic flash

< Exposure Profile Target II >

1. Set your L-758 D/DR/CINE to a) CORD or CORDLESS flash mode, b) incident light mode with the extended lumisphere and c) the ISO you desire to the one desired. Then d) the shutter speed you normally use for flash photography.
2. Take an incident light reading with the meter positioned in front of the 18% percent patch on the Exposure Profile Target.
For best results, the aperture reading should be at least 3-4 stops smaller than the maximum aperture of the lens you are using (ex. f/5.6). You may need to adjust the flash power level or distance of the flash heads to achieve this aperture setting.
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program

◆NOTE!

- Check the uniformity of the lighting. Illumination readings over the entire surface of the Exposure Profile Target should not differ more than +/-0.1EV.

3. Under the same lighting conditions, set the meter to reflected light mode and take a reading of the central 18% reflectance patch with the meter located at the camera position..
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program

◆NOTE!

- Using an aperture setting that is 3-4 stops smaller than the combination of shutter speed at the lens' middle aperture setting will assure a range of camera settings that will allow the +/-3EV bracket needed for the Exposure Profile Target II.

◆NOTE!

• Lens aperture settings

The Data Transfer Software (version 2.0) requires entering standard aperture setting when you create a camera exposure profile. If the lens you are using has a maximum aperture that is not a full, standard aperture, example f/2.5, round the number up to the next full aperture, example f/2.8. Then use this number when determining the shooting aperture for the lens. For a lens maximum aperture of f/2.8, the shooting aperture (three stops smaller than maximum aperture) is f/8.

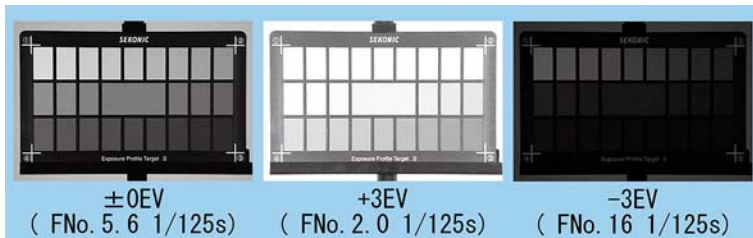
Full stop aperture values are as follows:

FNo. 0.5, 0.7, 1.0, 1.4, 2.0, 2.8, 4.0, 5.6, 8.0, 11, 16, 22, 32, 45, 64, 90, 128

4. Transfer the exposure meter's incident light shutter speed and aperture settings to your camera. Take the first picture of the sequence at these settings to obtain that standard exposure.
5. After shooting the standard exposure using the meter's incident light settings, manually open the lens aperture to shoot one shot at +3EV over the one used for the standard exposure. Then close the lens aperture down to take one shot -3EV under the one used for standard exposure.

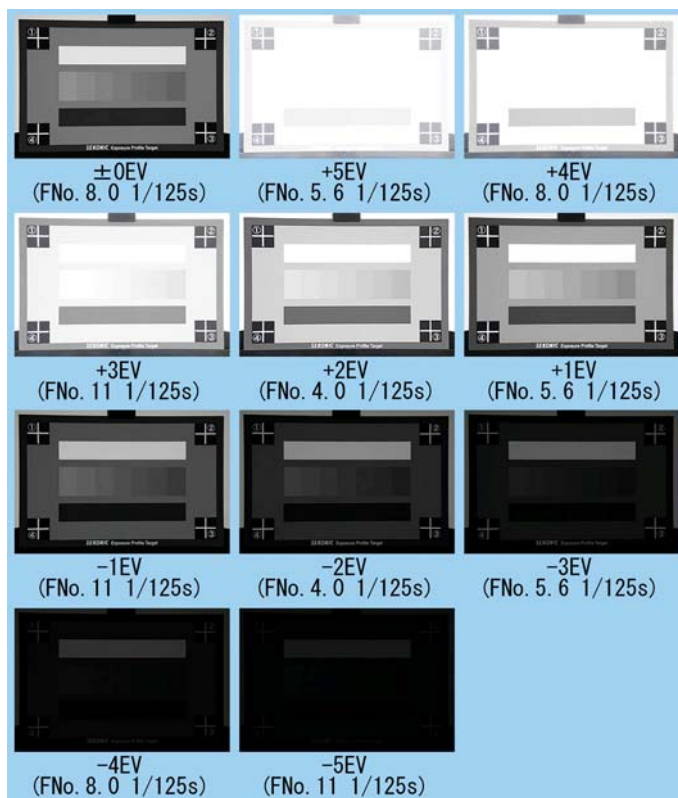
◆NOTE!

The example below assumes meter settings and a standard exposure of f/5.6 at 1/125th second. Your settings might be different.



< Exposure Profile Target >

- Because most camera lenses do not have an aperture range of 11 stops, it will be necessary to adjust both the lens aperture and the flash brightness to shoot a bracket sequence for the Exposure Profile Target. The example below assumes a lens with a maximum aperture of f/2.8. The aperture used for the standard exposure for this example is f/8, three stops smaller than maximum aperture.
- In order to achieve a proper result, you must be able to adjust the power level and working distance of the flash heads to produce a proper exposure at f/32 as well as a power level and flash distance to produce a proper exposure reading at f/2.0.



1. Set your L-758 D/DR/CINE to a) CORD or CORDLESS flash mode, b) incident light mode with the extended lumisphere and c) the ISO you desire to the one desired. Then d) the shutter speed you normally use for flash photography.
2. Take an incident light reading with the meter positioned in front of the 18% percent patch on the Exposure Profile Target.
3. For best results, the aperture reading should be at least 3 stops smaller than the maximum aperture of the lens you are using. For this example, aperture for proper exposure should be f/8.0. You may need to adjust the flash power level or distance of the flash heads to achieve this aperture setting.
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program

◆NOTE!

- Check the uniformity of the lighting. Illumination readings over the entire surface of the Exposure Profile Target should not differ more than +/-0.1EV.

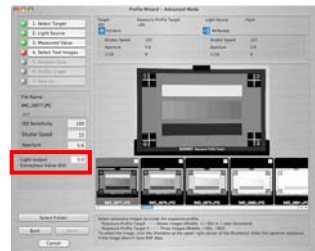
4. Under the same lighting conditions, set the meter to reflected light mode and take a reading of the central 18% reflectance patch with the meter located at the camera position.
 - ✧ Record the shutter speed set and aperture readout to 0.1 for entering later in the Data Transfer program
5. Transfer the exposure meter's incident light shutter speed and aperture settings to your camera. Take the first picture of the sequence at f/8.0 and your chosen shutter speed to obtain that standard exposure.

6. See the table to the right for aperture settings and flash brightness readings needed to achieve the full +/- 5EV exposure ranged needed to produce an exposure profile using the Exposure Profile Target.

EV	Exposure (FNo.)	Light Output (FNo.)
+ 5EV	5. 6	32
+ 4EV	8. 0	
+ 3EV	11	
+ 2EV	4. 0	8. 0
+ 1EV	5. 6	
0EV	8. 0	
- 1EV	11	2. 0
- 2EV	4. 0	
- 3EV	5. 6	
- 4EV	8. 0	
- 5EV	11	

- i After shooting the standard exposure using the meter's incident light settings, use the aperture settings in the green area of the table to manually set the lens aperture to f/4.0 (for +2EV), f/5.6 (+1EV), and f/11(-1EV).
- ii Adjust the power level or move flash heads closer to the Exposure Profile Target to produce a metered brightness value of f/32, +4 f/stops more than the standard exposure. Then take exposures with the lens aperture manually set to f/5.6 (for +5EV), f/8.0 (for +4EV), and f/11 (for + 3EV) as shown in the blue area.
- iii Adjust the power level, move the heads further from the Exposure Profile Target, or add diffusion to the flash heads to produce a metered brightness value of f/2.0, -4 f/stops less than the standard exposure. Then take exposures with the lens aperture manually set to f/4.0 (for -2EV), f/5.6 (for -3EV), f/8.0 (for-4EV), and f/11 (for -5EV) as shown in the yellow area.

iv When you create a camera exposure profile using the images taken above, you will need to enter a correction value in the Data Transfer Software (see the illustration to the left). For exposures taken with settings in the Blue area, enter 4.0 in the "Light Output Correction" box. For exposure taken with settings in the Yellow area, enter -4.0EV in the "Light Output Correction Value (EV)" box.



◆ Reference

- To shoot for ISO settings of 800 or higher, it is recommended that aperture value be 4 or more stops smaller than the maximum aperture of the lens you are using due to the meter's display range.

6. Appendix

(1) About Exposure

There are two exposure values: a standard exposure value and a proper exposure value. Understanding the meanings of these two exposure values is the key to better photography.

1) Standard Exposure Value

Exposure values (EV) are calculated based on illuminance (in the case of an incident light meter), or luminance (in the case of a reflected light meter). The calculation formulas used by these light meters contain constants called "calibration constants," which are the values that produce the differences in EV values. These constants are defined for specific ranges by each manufacturer. These values are what the manufacturers use to set their standard exposure values.

Note that since this explanation is based on the image reproduction, the term "Middle Tone" is used in *Data Transfer Software* (application),.

◆ Reference

The following are the calibration constants used in Sekonic light meters.

Incident Light Meter Calibration Constant: C=340 (Lumisphere)
C=250 (Lumidisc)

Reflected Light Meter Calibration Constant: K=12.5

2) Proper Exposure Value

To obtain the final images they want, skilled photographers often modify the exposure values displayed in light meters based on their instincts and personal preferences. This means that depending on the photographer's intentions, a different exposure value may be used even when shooting the exact same subject.

For example, when taking a picture of a forest that has rays of sunlight shining brightly between the trees.

If a photographer wants to highlight the rays of sunlight, he would measure the entire scene and use an exposure lower than the standard exposure to darken the trees, which makes the appearance of the sunbeams more striking. In this case, the proper exposure value is one that produces less exposure.

On the other hand, if the photographer wants to capture the mood inside the forest while still maintaining the image of the rays of sunlight shining through, he might measure the entire scene and use an exposure somewhat higher than the standard exposure. In this case the higher value would be the proper exposure value.

The proper exposure value is the one that produces the image that the photographer is trying to achieve.

(2) Sensitometry

"Sensitometry" is a term that was created by combining the words "sensitivity" and "measurement".

In the film camera era, a densitometer and other equipment were required to monitor the color temperature and brightness of the light source, exposure time and conditions, developing time, and film image density, equipment that most people did not have.

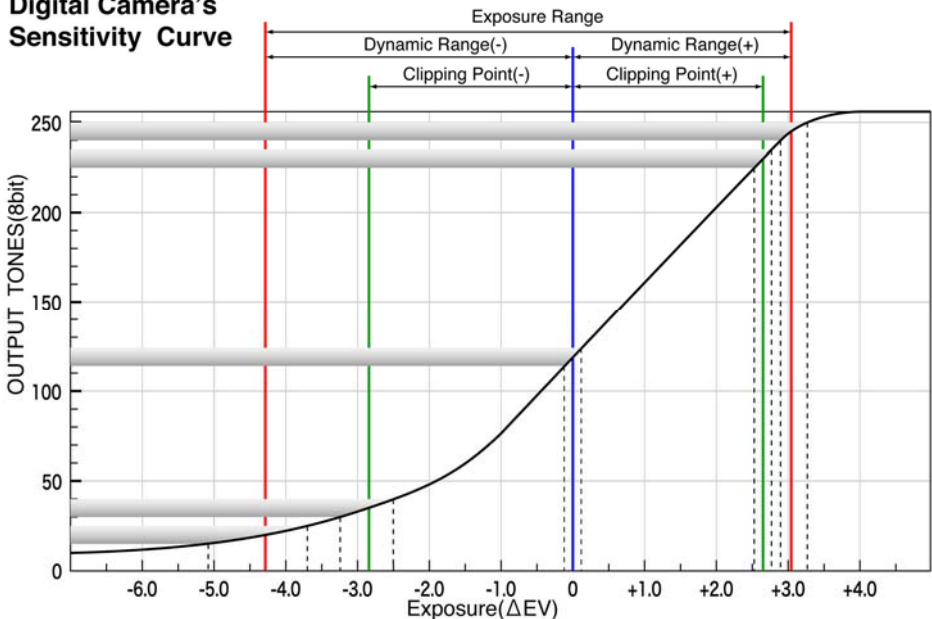
With the dawn of the digital camera age, however, image editing software has created an environment in which just about anyone can measure shooting conditions.

Here we will explain how to use a digital camera with a light meter to obtain good photographs and provide an understanding of some of the thinking behind sensitometry.

1) Sensitivity Characteristic Curve

This is a graph of the relationship between the amount of exposure (light source brightness + subject reflectivity) and output (digital camera)

Digital Camera's Sensitivity Curve



The graph above is presented to help explaining sensitivity characteristics. Not all digital camera characteristics are represented in this graph.

In an actual camera, there would be three graphs, one each for R, G, and B. Here we will assume that all three colors have identical characteristics, so we show only one graph.

In this graph, brightness differences are expressed as EV values based on the Middle Tone. The vertical axis of the graph is the output level (8-bit color). Level 0 is black, while level 255 is white.

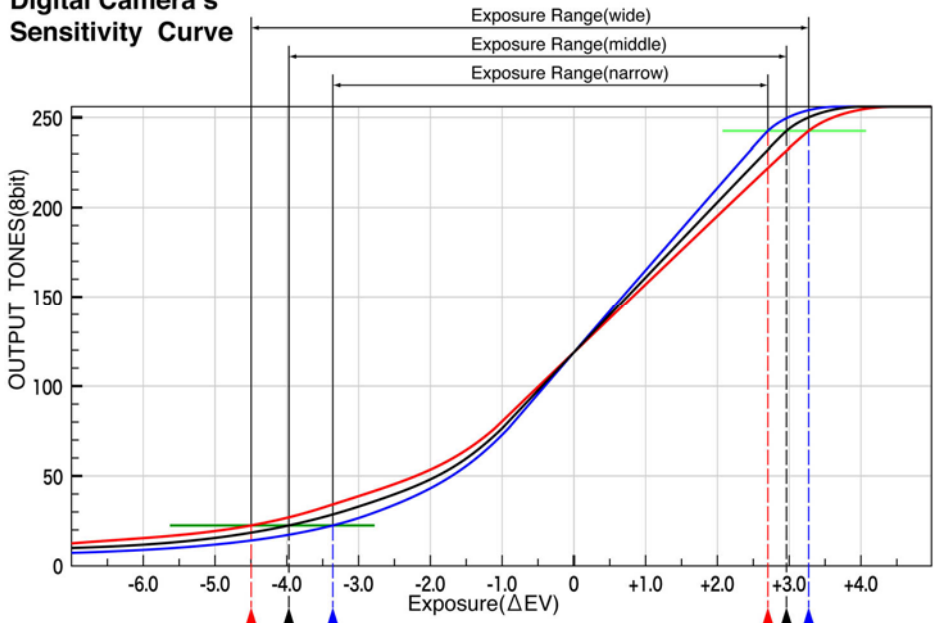
This graph shows how brightness differences in the subject will appear as brightness differences on a photograph.

More specifically, by using a light meter to measure the brightness of a subject, it is possible to know how the brightness will appear in the photograph based on the exposure setting of the camera.

For example, after you measure the highlights in a subject, you can determine numerically whether the measured area can be reproduced photographically (without blooming or highlight block up). You also can numerically determine whether the shadows can be reproduced photographically (without pixel noise or grain).

Some digital cameras have highlight and shadow warning functions, but the Digitalmaster L-758 series uses an EV scale, which makes it easier to check for blooming highlights or grain shadows using the number of aperture or shutter speed steps.

Digital Camera's Sensitivity Curve



The graph above is one example to help explaining sensitivity curves.

Digital cameras with red sensitivity curves have the widest exposure range, making them capable of reproducing from -4.5 EV to the Middle Tone on the shadow side and from approximately 3.2 EV from the Middle Tone on the highlight side. (If the dynamic range (-) is 25 and the dynamic range (+) is 240 in *Data Transfer Software 2.0*)

In addition, if there is a steep curve near the Middle Tone for all of the red, black and blue sensitivity curves, and the camera is capable of capturing data such that the further the curves move away from the Middle Tone, the flatter the curves become. The amount of change in the output level will be the same as the brightness near the Middle Tone, indicating that the camera is capable of reproducing clear contrast between the highlights and the shadows. On the other hand, if the change in output level is less than the change in brightness at a point that is far from the Middle Tone, this indicates that the camera is being made to be more able to reproduce fine detail in the highlight and shadow areas, which is difficult to reproduce, by controlling the density changes for the brightness changes.

The purpose of finding out the characteristic curve of your digital camera is not to find out if the characteristics are good or bad. By understanding the characteristics of your digital camera, you will be able to understand how it will reproduce the brightness of a subject that you measure using a light meter.

If you can shoot with lighting that uses the maximum exposure range of your digital camera, you will be able to take shots that bring out the best characteristics of your camera.

◆ Reference

The Middle Tone, dynamic range (-), clipping point (-), clipping point (+) and dynamic range (+) settings will differ depending on how you think about image reproduction.

At Sekonic, we use the following values as our default standard values. The numbers in parentheses indicate the standard range.

Middle Tone	118 (113~123)
Dynamic Range (-)	20 (15~25)
Clipping Point (-)	35 (30~40)
Clipping Point (+)	230 (225~235)
Dynamic Range (+)	245 (240~250)

2) Middle Tone

The standard sensitivity level ^{*1} of a digital camera is called the "Middle Tone" by Sekonic.

For the standard range, Sekonic uses a setting of 113 to 123. If you feel that there is a difference between the measured data and the setting, you can adjust it to the appropriate value.

From the test exposure data, *Data Transfer Software* finds the level value for the Middle Tone that you set and calculates the difference between the exposure conditions that can be obtained from this Middle Tone value (aperture and shutter speed values) and the measured value from the light meter as the "Compensation Value".

*1 Standard Sensitivity Level: The sensitivity measurement standard value (118 in 8-bit color), is the Y-value (green) that corresponds to an 18% standard neutral gray subject when the digital maximum output (255 in 8-bit color) in the sRGB color space corresponds to a subject reflectivity of 100%.

3) Clipping Point

The clipping point means the range where the output level changes the same amount with respect to the changes in photographic exposure. At Sekonic, the range from the Middle Tone in the highlight direction is called the "clipping point (+)", and the range in the shadow direction is called "clipping point (-)". You can set 0 EV to +7 EV for clipping point (+) and -7 EV to 0 EV for clipping point (-).

The setting range (level) should be set in accordance with the specifications of the digital camera you are using and what type of images you are trying to achieve.

Sekonic uses the ranges of 225 to 235 for clipping point (+) and 30 to 40 for clipping point (-) as a guide. If you feel that there is a difference between the measured data and the setting, you can adjust it to the appropriate value.

*2 Photographic Exposure: This is the amount of light that reaches the sensor or film after passing through the lens. Put more simply, it is the brightness of the subject.

4) Dynamic Range

The dynamic range means the range where the sensor output becomes gradually smaller with respect to changes in the photographic exposure, and is the area where texture and tone can be photographically reproduced. At Sekonic, the range from the Middle Tone in the highlight direction is called the "dynamic range (+)", and the range in the shadow direction is called the "dynamic range (-)". You can set 0 EV to +7 EV for dynamic range (+) and -7 EV to 0 EV for dynamic range (-).

The setting range (level) should be set in accordance with the specifications of the digital camera you are using and what type of images you are trying to achieve.

The values (especially on the shadow side) will depend on how much plugging up you find acceptable in the shadows and how much blowing out you find acceptable in the highlights.

Sekonic uses the ranges of 240 to 250 for dynamic range (+) and 15 to 25 for dynamic range (-) as a guide. If you feel that there is a difference between the measured data and the setting, you can adjust it to the appropriate value.

◆ Reference

If you are shooting with printing in mind, you can make the following types of settings.

Clipping point: Level values that can be rendered in print

Daynamic range: Dynamic range or clipping point of the image that is photographed

As a result, the brightness of the subject is not measured just by the characteristics of the digital camera sensor when you take the picture, it also considering the dynamic range for printing.

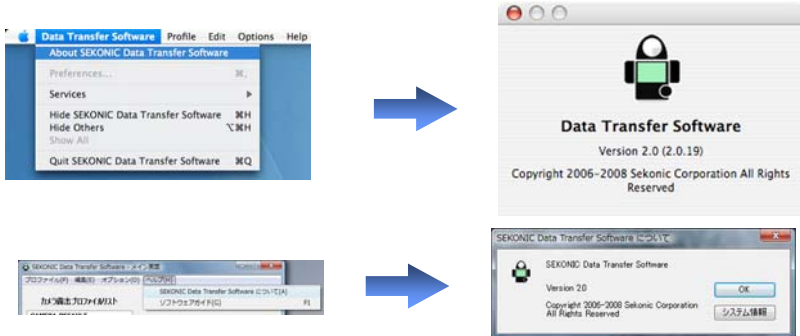
7. Troubleshooting

This section provides information about what to do when you encounter some of the most common problems that may occur while using *Data Transfer Software*. Before contacting Sekonic, check the information here to see if you can solve the problem on your own.

We recommend that you keep notes of messages that appear on your screen and other details. They will come in handy as you look for information in this troubleshooting guide and if you need to contact Sekonic.

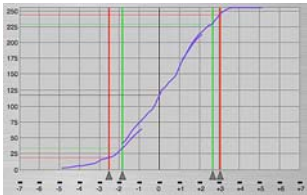
Make sure you first select “About SEKONIC *Data Transfer Software*” in the “*Data Transfer Software*” menu on the Macintosh computer to find out which version you are using.

In the Windows version, click on “About SEKONIC *Data Transfer Software*” in the “Help” menu to check the version of the software.



Problem	Recommended Action
The installer does not start up automatically.	Navigate to the CD-ROM on your computer and double-click "AutoRun". (Windows: See Page 16.)
Screen text characters are corrupted.	If you installed the wrong language version of the driver and <i>Data Transfer Software</i> , uninstall them. Next re-install <i>Data Transfer Software</i> for the language version that matches the language of your operating system. (Macintosh: See Page 9.) (Windows: See Page 14.)
Cannot enter a file name.	Enter up to 31 single-byte alphanumeric characters for the file name. Double-byte characters are not supported. (See Page 32.)

Problem	Recommended Action
Cannot enter a file name.	Enter up to 31 single-byte alphanumeric characters for the file name. Double-byte characters are not supported. (See Page 32.)
My computer does not recognize the light meter.	<ol style="list-style-type: none"> 1. Use a computer that meets the <i>Data Transfer Software</i> system requirements. (Macintosh: See Page 8.) (Windows: See Page 13.) 2. Connect the USB cable. (See Page 20.) 3. Check whether or not the light meter is on. 4. Complete driver installation. (Macintosh: See Page 9.) (Windows: See Page 14.)
A file saved on my computer will not open with <i>Data Transfer Software</i> .	<p>Editing a file with software other than <i>Data Transfer Software</i> may make it unreadable by <i>Data Transfer Software</i>. Be sure to use <i>Data Transfer Software</i> to edit files. (See Page 34.)</p>
<i>Data Transfer Software</i> suddenly shut down.	<ol style="list-style-type: none"> 1. When the computer is not running Restart the computer. Note that any data being edited in <i>Data Transfer Software</i> will be lost at this time.) 2. When <i>Data Transfer Software</i> is not running (Windows) <ol style="list-style-type: none"> (1) Press "Ctrl + Alt + Delete" on the computer to start Task Manager. (2) Select the "Applications" tab, and then select "<i>Data Transfer Software</i>" under "Task". (3) Click the [End Task] button. (4) If a message appears saying, "This program is not responding", click the [End Now] button. (5) If a message appears saying, "You chose to exit <i>Data Transfer Software.exe</i>, which is not responding", click the "Don't Send" button. (6) Restart <i>Data Transfer Software</i>. Note that any data being edited in <i>Data Transfer Software</i> will be lost at this time.) 2. When <i>Data Transfer Software</i> is not running (Macintosh) <ol style="list-style-type: none"> (1) Press "option + command + esc" on the computer to force quit <i>Data Transfer Software</i>. Restart <i>Data Transfer Software</i>. Note that any data being edited in <i>Data Transfer Software</i> will be lost at this time.)

Problem	Recommended Action
<p>The Data Transfer Software text display extends out too far. *Windows only</p>	<p>From the Windows Control Panel, display the Display Properties dialog box. Select the "Settings" tab and then click the [Advanced] button. On the "General" tab, select "Normal size (96 DPI)" for "DPI setting". Restart your computer and then restart <i>Data Transfer Software</i>. Note that any data being edited in <i>Data Transfer Software</i> will be lost at this time.)</p>
<p>The graph line shifted.</p> 	<p>The exposure was incorrect when the shot was taken.</p> <ul style="list-style-type: none"> Ambient light <ol style="list-style-type: none"> If you shoot using a shutter speed that is close to the camera's maximum speed, a difference arises between the published value and the actual value, which may change the amount of exposure and cause the lines on the graph to shift. Adjust the amount of light (decrease the amount of light) so that the camera shutter speed does not approach its maximum speed. In addition, when you select an image in "Select Test Image", enter the amount of shift in the light output correction value. In the example to the left, the lowest data in the graph is shifting to the right, so enter a correction of about -0.3 EV.

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