



# **Digital Photo Printer CHC-S2145 Printer Driver Ver.1 Instruction Manual**

## **Contents**

Using your printer with Windows computers-----	1
System requirements -----	1
Notes -----	1
Installing the printer driver -----	2
Uninstalling the printer driver -----	7
Printing from application software -----	8
To cancel printing -----	12
Color adjustment-----	13
Split Print-----	16
Troubleshooting -----	18

# SHINKO ELECTRIC CO., LTD. SOFTWARE LICENSE AGREEMENT

## **IMPORTANT**

**READ THIS AGREEMENT CAREFULLY BEFORE USING THE SOFTWARE ON THE CD-ROM SUPPLIED WITH THE PRINTER.**

**BY USING THIS SOFTWARE, YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT.**

**IF YOU DO NOT AGREE TO THE TERMS AND CONDITIONS OF THIS AGREEMENT, DO NOT USE THE SOFTWARE INCLUDING THE DOCUMENTS ON THE CD-ROM PROVIDED, AND PROMPTLY RETURN THE WHOLE PRODUCT TO YOUR DEALER.**

## **1. LICENSE**

SHINKO ELECTRIC CO., LTD. ("SHINKO") grants you the non-exclusive right to use one copy of the SOFTWARE under the terms and conditions of this Agreement.

## **2. RESTRICTIONS ON USE**

You may use the SOFTWARE on a single computer. You may not modify, reverse engineer, decompile, or disassemble the SOFTWARE.

## **3. DISCLAIMER OF WARRANTY**

This SOFTWARE is provided to you "AS IS" and without any warranty and liability of any kind.

SHINKO, its licensors or suppliers do not warrant that the functions contained in the SOFTWARE will meet your requirements or that the operation of the SOFTWARE will be uninterrupted or error free.

## **4. LIMITATION OF LIABILITY**

In no event will SHINKO, its licensors or suppliers be liable to you for any consequential, indirect, incidental, punitive or special damages, including any lost profits or lost savings, or other damages arising from the use or inability to use the SOFTWARE even if advised of the possibility of such damages.

Some States or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

## **5. TERM; TERMINATION**

This license is effective until terminated. You may terminate this license at any time by destroying the SOFTWARE and all copies in any form. This license will terminate without notice to you if you fail to comply with any term or condition of this license. Upon termination you must destroy the SOFTWARE and all copies in any form.

## **6. EXPORT RESTRICTIONS**

You agree to comply fully with all international and national laws and regulations that apply to the SOFTWARE, and your use thereof, including, but not limited to, end-user, end-use and destination restrictions issued by Japanese and other governments. Without limiting the generality of the foregoing, you agree not to export, directly or indirectly, re-export, divert, or transfer the SOFTWARE or any direct product thereof to any destination, company or person restricted or prohibited by national and international laws or regulations or laws or regulations of any other applicable jurisdiction.

# Using your printer with Windows computers

The supplied CHC-S2145 printer driver enables you to print an image stored on your computer with the CHC-S2145 digital photo printer. To print an image from the computer, you need appropriate application software that can open the image and print with the printer.

## System requirements

To use the supplied printer driver, you need a computer that meets the following system requirements:

- OS: Windows 2000 Professional /  
Windows XP Home Edition / Windows XP Professional (32 bit)
- CPU: Pentium 150 MHz or better (Windows 2000 Professional)  
Pentium 300 MHz or better (Windows XP Home Edition / Windows XP Professional)
- RAM: 64 MB or more (Windows 2000 Professional)  
128 MB or more (Windows XP Home Edition / Windows XP Professional)
- Disk free space: 650 MB or more (Windows 2000 Professional)  
1.5 GB or more (Windows XP Home Edition / Windows XP Professional)
- Port: A built-in USB port on the personal computer.
- CD-ROM drive: For software installation.

## Notes

- (1) Be sure to connect the printer directly to your computer. Connecting it via a USB hub may cause the printer to not operate properly.
- (2) Do not use the printer together with other USB devices except a USB keyboard or mouse.
- (3) Do not connect two or more CHC-S2145 digital photo printers at the same time.
- (4) Do not unplug the USB cable during data transferring or printing. To do so may cause the printer to not operate properly.
- (5) The printer driver cannot be used for network printer.
- (6) Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation.
- (7) Other names and products not mentioned above may be registered trademarks or trademarks of their respective companies.
- (8) If you have any questions or problems please contact [chc-master@tokyo.shinko-elec.co.jp](mailto:chc-master@tokyo.shinko-elec.co.jp)

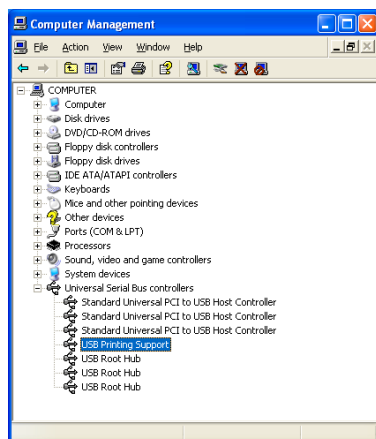
# Installing the printer driver

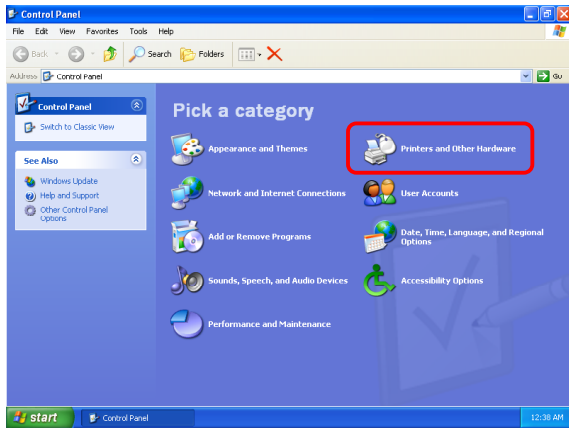
## NOTES

- (1) Make sure that the printer is not connected to the computer.
- (2) The explanations in this section are based on Windows XP. On another version of Windows, the actual screen contents and procedures may vary from those shown.

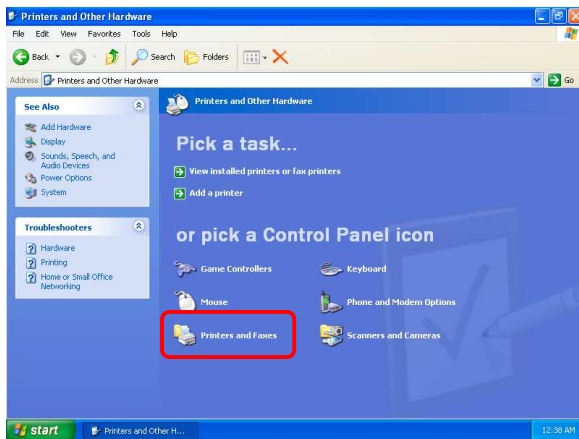
1. Turn on your computer and start Windows.
2. Be sure to log on with "Administrator" privileges.
3. Be sure to close all running programs before installing the software.
4. Turn the printer on.
5. Connect the printer to your computer, using the USB cable.

When connection is established, USB printing support is automatically enabled by Device Manager.

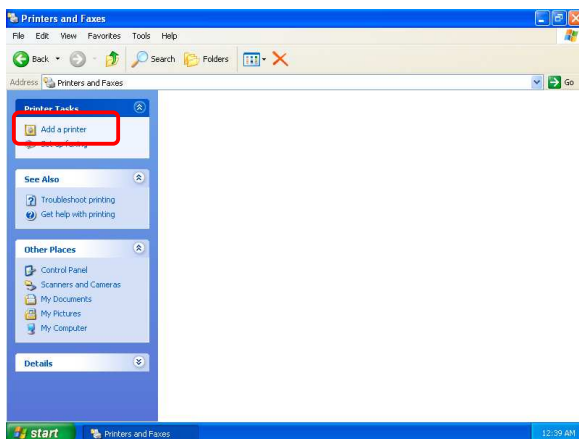




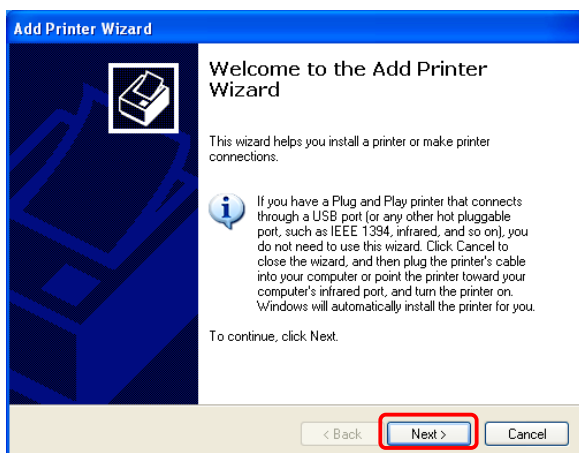
6. Open the Control Panel window from Windows Start menu, and then click "Printers and Other Hardware".



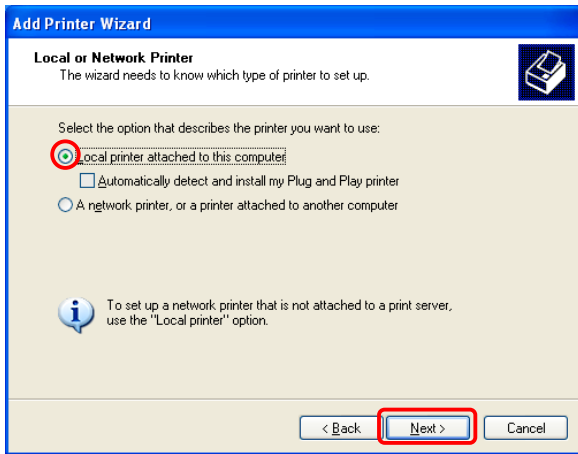
7. Click "Printers and Faxes".



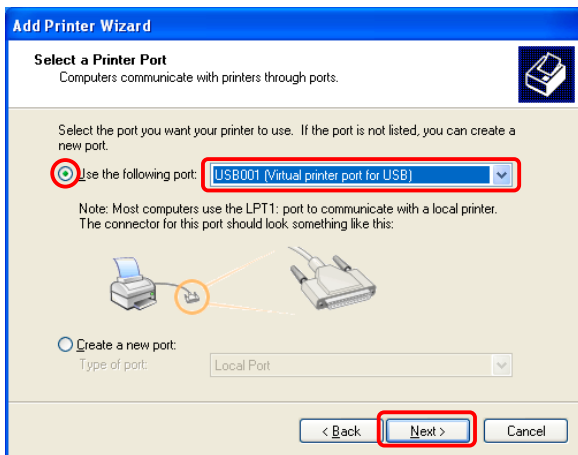
8. Click "Add a printer".



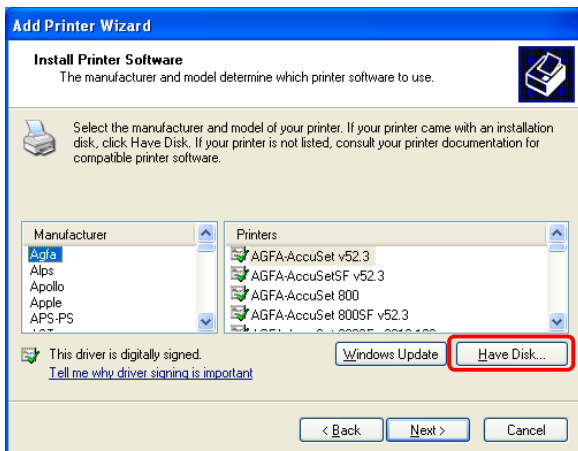
9. Click "Next".



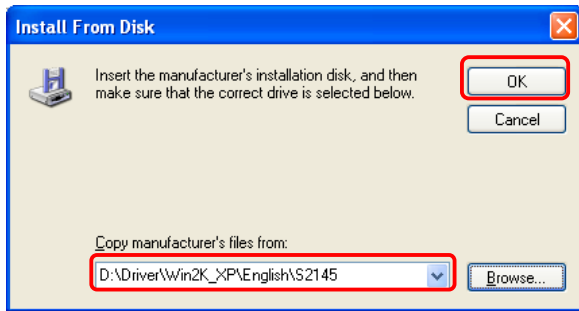
10. Select "Local printer attached to this computer" and uncheck "Automatically detect and install my Plug and Play printer", and then click "Next".



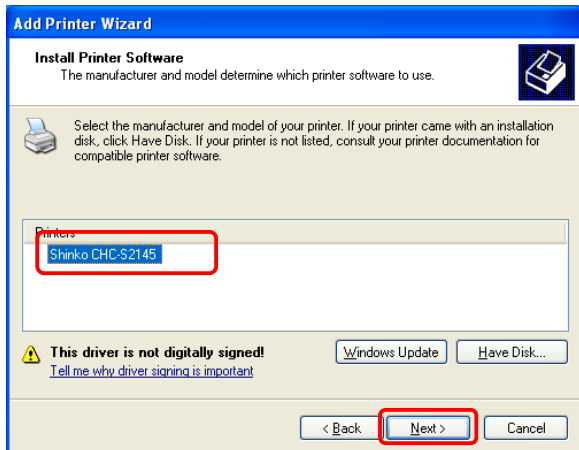
11. Select "USB\*\*\* (Virtual printer port for USB)" at "Use the following port", and then click "Next".



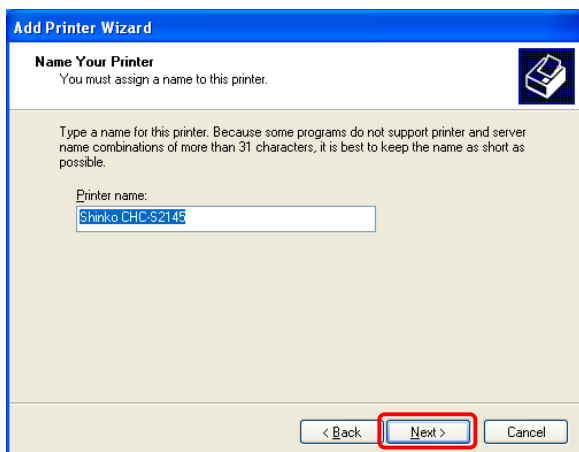
12. Click "Have Disk..."



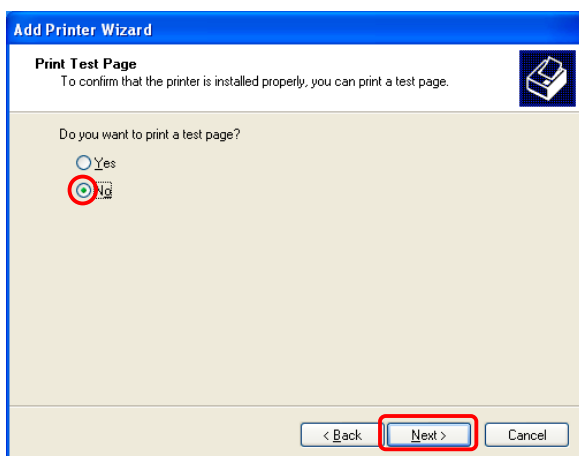
13. Insert the Printer Driver CD-ROM.  
Click "Browse..." to select the "S2145" subfolder under the folder for each version of Windows.  
For Windows XP:  
"D:\Driver\Win2K\_XP\English\S2145"



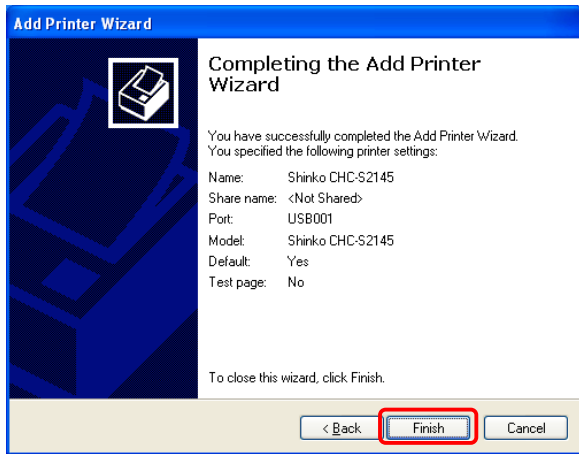
14. Select "Shinko CHC-S2145", and then click "Next".



15. Click "Next".



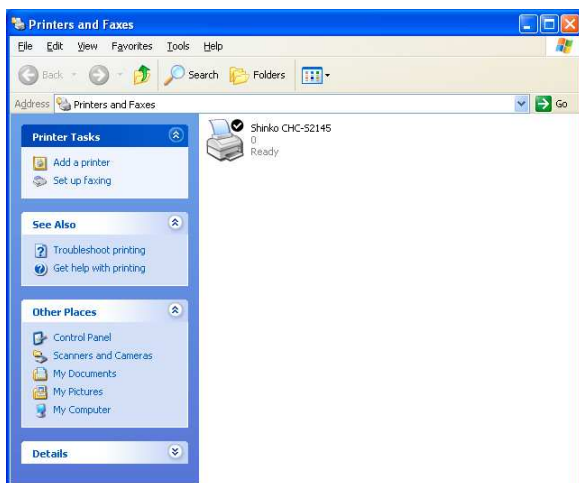
16. Select "No", and then click "Next".



17. Click "Finish".



18. Click "Continue Anyway".



19. The "Shinko CHC-S2145" printer icon appears in the "Printers and Faxes" window.



## Uninstalling the printer driver

To uninstall the printer driver, follow the procedures below.

1. Unplug the USB cable from your computer.
2. Select "Settings" from the Windows Start menu, and then click "Printers and Faxes". For Windows 2000, click "Printers".
3. Right-click on the "Shinko CHC-S2145" printer icon, and select "Delete" from the pop-up menu.
4. Click "Yes" for "Are you sure you want to delete the printer 'Shinko CHC-S2145'?" in the dialog box.  
The relevant files in the system will be deleted.
5. Click "Server Properties" in the "File" menu.
6. Select the "Drivers" tab, select "Shinko CHC-S2145", and then click "Remove".
7. Follow the on-screen instructions when a confirmation message appears.

## Printing from application software

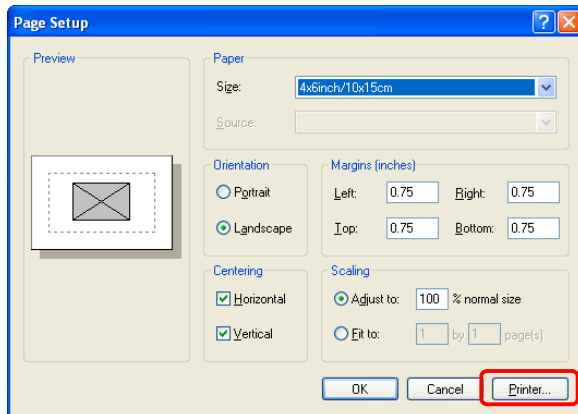
You can use the "Print" command of application software to print an image from your computer with CHC-S2145 digital photo printer.

### NOTES

- (1) Before printing, make sure that the printer is properly connected to your computer with a proper USB cable.
- (2) This section describes setting up the driver and printing from the Windows "Paint" program as typical application software.
- (3) The explanation in this section is based on Windows XP.
- (4) The maximum image size for each paper size is as follow.

Paper size selected	Maximum image size in pixel units
4x6inch/10x15cm	1,240 x 1,844
3.5x5inch/9x13cm	1,088 x 1,548
5x7inch/13x18cm	1,548 x 2,140
6x8inch/15x20cm	1,844 x 2,434
6x9inch/15x23cm	1,844 x 2,740
6x9inch/15x23cm(Split-2UP)	1,844 x 2,492

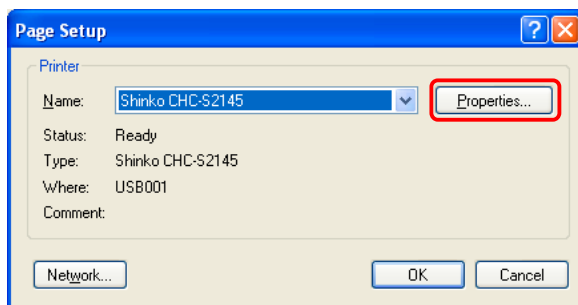
1. Start the application software, and open the image to print.
2. Click "Page Setup" from the "File" menu of the application.  
The "Page Setup" dialog box appears.



3. Page Setup.

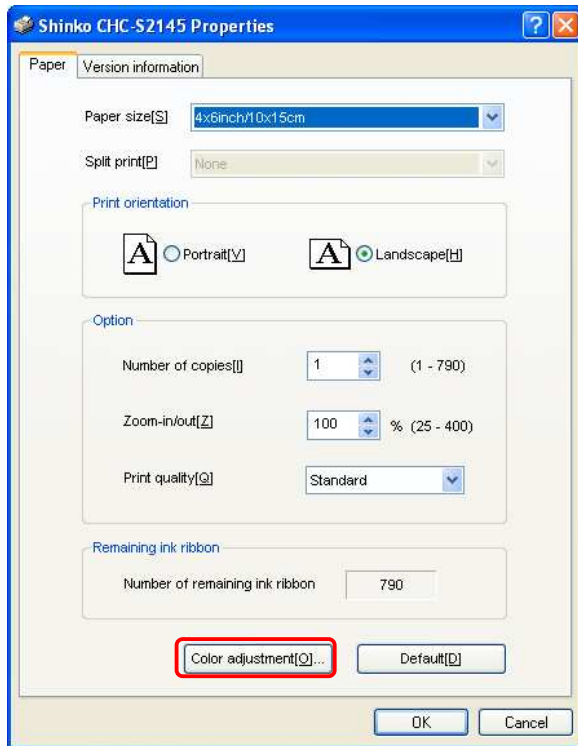
Your application software may show a different appearance.

- 3-1. Click "Printer..." to show the "Page Setup" dialog box.



- 3-2. Select "Shinko CHC-S2145"

- 3-3. Click "Properties..." to show the "Shinko CHC-S2145 Properties" dialog box.



### 3-4. Paper size

Choose a paper size you want to print.

### 3-5. Split print

When you use the "Split Print" function, select a combination of finished print size.

Currently one combination of two 4 x 6 inch prints is available.

### 3-6. Print orientation

Select the Print orientation of an image either from "Portrait" or "Landscape".

### 3-7. Number of copies

Set the number of copies.

*Effective Range: 1 ~ 790 (Default: 1)*

### 3-8. Zoom-in / out

Set percentage at "Zoom-in / out".  
The origin for image scaling is on the center.

*Effective Range: 25 ~ 400 (Default: 100)*

### 3-9. Print quality

Choose a print quality from "Standard" or "Fine". Selecting "Fine" provides the finest printing result while "Standard" provides the fastest printing of the printer.

### 3-10. Number of remaining ink ribbon

This item shows approximate number of available prints with the loaded ink ribbon.

### NOTES

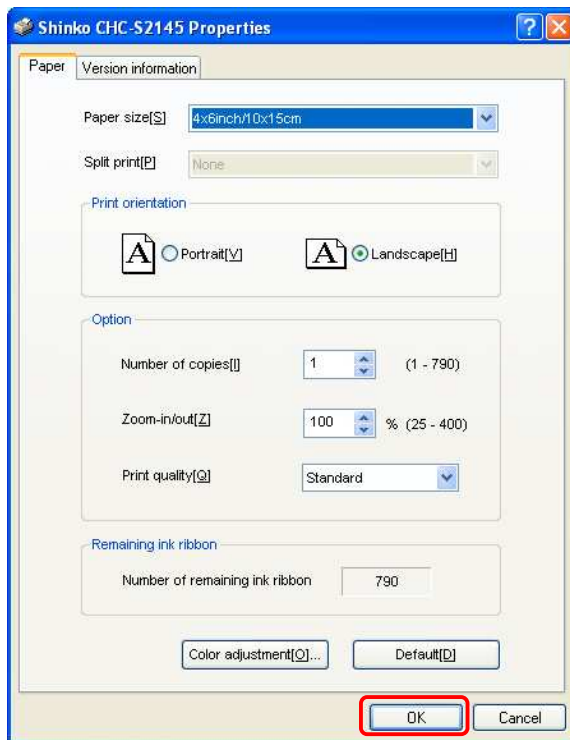
The actual number of prints may vary from the figure displayed depending on how the successive printing is performed.



### 3-11. Color adjustment

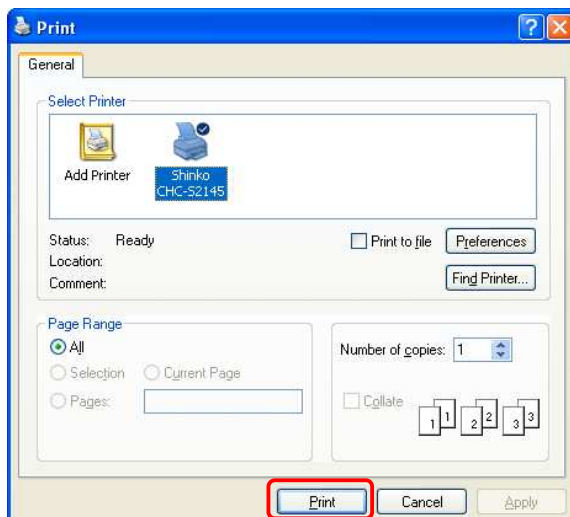
Clicking this button shows the "Color adjustment" window to adjust the prints.

See the section of "Color adjustment" in this document.



### 3-12. Click "OK" to return to the "Page Setup" dialog box.

### 3-13. Click "OK" to close the "Page Setup" dialog box.



### 4. Click "Print" from the "file" menu of the application software. The "Print" dialog box appears.

### 5. Click "Print" to start printing.

Click "Cancel" to cancel.

## To cancel printing

- When the application software shows the Print dialog box, click "Cancel".  
The print job will be canceled and the dialog box will be closed.
- When the print job has already entered into the print queue,
  1. Select "Settings" from the Windows Start menu, and then click "Printers and Faxes". For Windows 2000, click "Printers".
  2. Double-click on the "Shinko CHC-S2145" icon.  
The "Shinko CHC-S2145" window is displayed. The documents in the print queue are listed in the window.
  3. Click the document you want to cancel.
  4. Click "Cancel" in the "Document" menu.  
The document is removed from the list and the print job is canceled.  
For the details, refer to the Windows documentation.

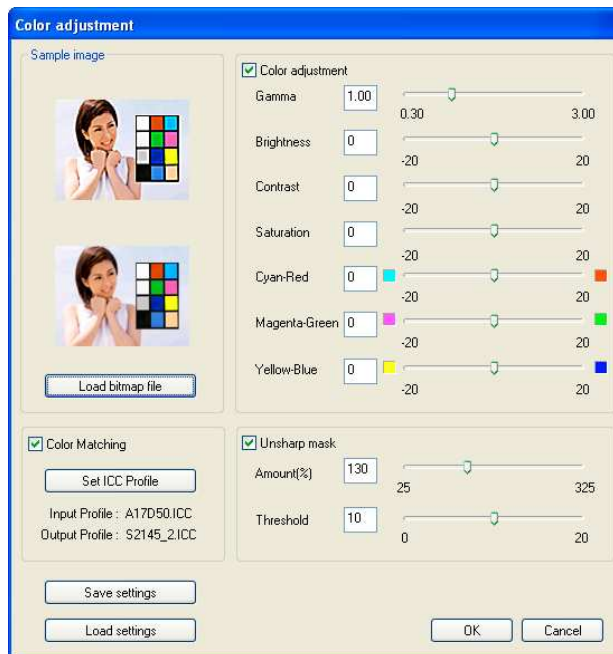
### NOTES

If printing has already started, do not cancel printing.  
Please wait until the printing is completed.

# Color adjustment

## Color adjustment window

You can select various kinds of printing options for color adjustment in the "Color adjustment" window.



## Sample image

The upper image will preview the effects of color adjustments.  
The lower image represents the original sample image.

### NOTES

The preview image shows the approximate effects of color adjustment and may not represent the actual printing result.

## Load bitmap file button

Clicking this button displays open dialog window to load a bitmap file to replace the default sample image.

Acceptable bitmap file: 24-bit full color, 480(H) x 680(W) pixels or less.

## Color Matching checkbox

Checking this checkbox enables the color matching process for input images.

## Set ICC Profile button

Clicking this button displays the "Color Matching" window to allow you to define how the color matching applies to an input image.

## Input ICC Profile:

The input ICC profile name is displayed to be used for the color matching process.

**Output ICC Profile:**

The output ICC profile name is displayed to be used for the color matching process.

**Save settings button**

Clicking this button displays the open dialog window to save the settings of color adjustment to an external file.

**Load settings button**

Clicking this button displays the open dialog window to load the settings of color adjustment from an external file.

**Color adjustment checkbox**

Checking this checkbox enables every settings of "Color adjustment" option.

**Gamma editbox / slider bar**

This option adjusts the midtone of the print image. Drag the slider bar to the right to decrease the lightness of the midtone or to the left to increase it. You can also enter a value directly in the editbox.

*Adjustable range: 0.30 ~ 3.00 (Default: 1.00)*

**Brightness editbox / slider bar**

This option adjusts the brightness of the print image. Drag the slider bar to the right to increase the brightness or to the left to decrease it. You can also enter a value directly in the editbox.

*Adjustable range: -20 ~ 20 (Default: 0)*

**Contrast editbox / slider bar**

This option adjusts the contrast of the print image. Drag the slider bar to the right to increase the contrast or to the left to decrease it. You can also enter a value directly in the editbox.

*Adjustable range: -20 ~ 20 (Default: 0)*

**Saturation editbox / slider bar**

This option adjusts the saturation of the print image. Drag the slider bar to the right to increase the saturation or to the left to decrease it. You can also enter a value directly in the editbox.

*Adjustable range: -20 ~ 20 (Default: 0)*

**Cyan – Red editbox / slider bar**

This option adjusts the color balance between Cyan and Red elements. The higher you set the value, the more the Red element increase while the Cyan element decrease – and vice versa.

*Adjustable range: -20 ~ 20 (Default: 0)*



### **Magenta – Green editbox / slider bar**

This option adjusts the color balance between Magenta and Green elements. The higher you set the value, the more the Green element increase while the Magenta element decrease – and vice versa.

*Adjustable range: -20 ~ 20 (Default: 0)*

### **Yellow – Blue editbox / slider bar**

This option adjusts the color balance between Yellow and Blue elements. The higher you set the value, the more the Blue element increase while the Yellow element decrease – and vice versa.

*Adjustable range: -20 ~ 20 (Default: 0)*

### **Unsharp mask checkbox**

Checking this checkbox enables every settings of "Unsharp mask" option.

### **Amount [%] editbox / slider bar**

This option adjusts the magnitude of contrast at the edges of the print image. The higher you set the value, the sharper the print image becomes.

*Adjustable range: 25 ~ 325 (Default: 130)*

### **Threshold editbox / slider bar**

This option sets threshold against the brightness change among the pixels contained in the image to determine if the unsharp mask is applied. The lower you set the value, the sharper the print image becomes.

*Adjustable range: 0 ~ 20 (Default: 10)*

### **OK button**

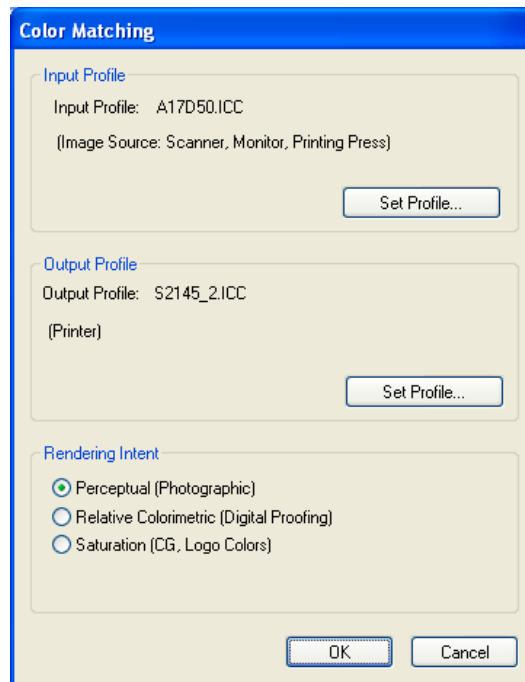
Clicking this button fixes the settings in the "Color adjustment" window, and then close the window.

### **Cancel button**

Clicking this button discards the settings in the "Color adjustment" window, and then close the window.

## Color Matching window

You can choose ICC profiles and a Rendering Intent.



### Input Profile:

Current input ICC profile name in use is displayed.

### Output Profile:

Current output ICC profile name in use is displayed.

### Set Profile... button

Clicking this button allows you to load an input ICC profile or an output ICC profile respectively.

At the "Input Profile", load an ICC profile for the input device by which the current image was created.

At the "Output Profile", load an ICC profile (S2145\_2.ICC) for the printer.

### Rendering Intent

You can choose Rendering Intent from the three options as shown in the table below.

Rendering Intent	Features
Perceptual (Photographic)	Maps color smoothly, preserving relationships between similar colors, and generally provides the best reproduction of photographs.
Relative Colorimetric (Digital Proofing)	Represents any remaining out of gamut colors by the closest match and is generally a good choice for proof print.
Saturation (CG, Logo Colors)	Prints punchy business charts and graphs, preserving the saturation or brightness of colors.

### OK button

Clicking this button fixes the settings in the "Color Matching" window, and then close the window.

### Cancel button

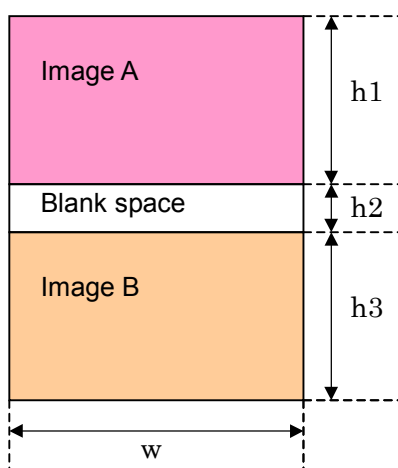
Clicking this button discards the settings in the "Color Matching" window, and then close the window.

## Split Print

CHC-S2145 Printer Driver can perform Split Print in combination with 2 images, which are combined by certain application software. This method saves print job time, and ink ribbon.

1. Combine 2 images with blank space by your application software.

The dimensions of whole and each image and blank space are shown in the table below.



Combination of image	Image A $h1 \times w$ [Pixel]	Blank space $h2 \times w$ [Pixel]	Image B $h3 \times w$ [Pixel]
4x6 inch & 4x6 inch	1240 x 1844	12 x 1844	1240 x 1844

2. The proper settings in the "Shinko CHC-S2145 Properties" dialog box are as follows.

Print size: 6x9inch/15x23cm(Split-2UP)  
Split print: 4 x 6 & 4 x 6 [inch]  
Print orientation: Portrait  
Zoom-in/out: 100 %

3. The image B and A will be printed, cut and come out from the printer in this order.

## Troubleshooting

When the printer driver displays an error message on the computer screen, refer to the following table below for its cause and correction.

Error Messages	Possible Causes	Possible Solutions
The printer is not connected.	An unsupported printer is connected to the computer.	Connect the acceptable printer to the computer with a USB cable.
Control circuit error. (xxh) Please contact service center.	A hardware malfunction may have occurred in the printer.	Consult the distributor of the printer or our support center.
Mechanical error. (xxh) Please contact service center.		
Sensor error. (xxh) Please contact service center.		
Temperature sensor error. (xxh) Please contact service center.		
Paper jam. (xxh) Please remove jammed paper.	A paper jam has occurred.	Remove the jammed paper in accordance with the user manual of the printer.
The cover is open. Please close the cover.	The printer cover is open.	Close the printer cover.
Out of ink ribbon. Please check ink ribbon.	The ink ribbon has run out or is not loaded.	Remove the used ink ribbon and load a new one.
No paper. Please load paper.	The paper roll has run out or is not loaded.	Load a new one.
Printing is not possible with the specified paper size. Please check the paper size.	The size of paper loaded in the printer does not match the size specified in the current print job.	Load the correct size of paper to the printer or cancel the print job and print again with the correct paper size.
In use. Please print again.	The operation panel is in use.	Exit from the "Test Print Mode" of the printer.
Can not use this profile on current ribbon and image mode.	Incorrect ICC profile(s) are specified for the current settings.	Check if the ICC profile(s) are compatible with the current settings.
Can not find right ICC Profile.	The selected ICC profile is not found; or the ICC Profile has collapsed.	Check if the ICC Profile exists and is not broken.
Can not load bitmap file.	The selected bitmap file is not supported.	Load an acceptable bitmap file that is in 24-bit full color and up to 480 pixels in height and 680 pixels in width.