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SL-D3000
Administrator's Guide

Meaning of Symbols

Note: Notes contain important information on the operation of this product.
Tip: Tips contain useful or additional information on the operation of this product.

Operating System Versions

In this manual, the following abbreviations are used.

Windows refers to Windows 7, Vista, XP.

❏   Windows 7 refers to Windows 7 Home Basic, Windows 7 Home Premium, Windows 7 Professional, and Windows 7 Ultimate.

❏   Windows Vista refers to Windows Vista Home Basic Edition, Windows Vista Home Premium Edition, Windows Vista Business Edition, Windows Vista Enterprise Edition, and Windows Vista Ultimate Edition.

❏   Windows XP refers to Windows XP Home Edition, Windows XP Professional x64 Edition, and Windows XP Professional.

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Setup and Maintenance

You can perform printer maintenance and check printer status from the Client PC.

You can set the user authority to "Operator" or "Administrator". Available functions differ depending on the authority.

SL-D3000 Maintenance Utility screen (when using as an Operator):
You can perform a **Pre-operation Check**, **Post-operation Check**, **Printer Information**, **Settings/Maintenance**, , and check **Error History**.

In Printer Information, you can check the printer's status.

In Settings/Maintenance, you can perform adjustment/maintenance operations such as head cleaning.

In Error History, you can check errors that have occurred in the printer, and information.
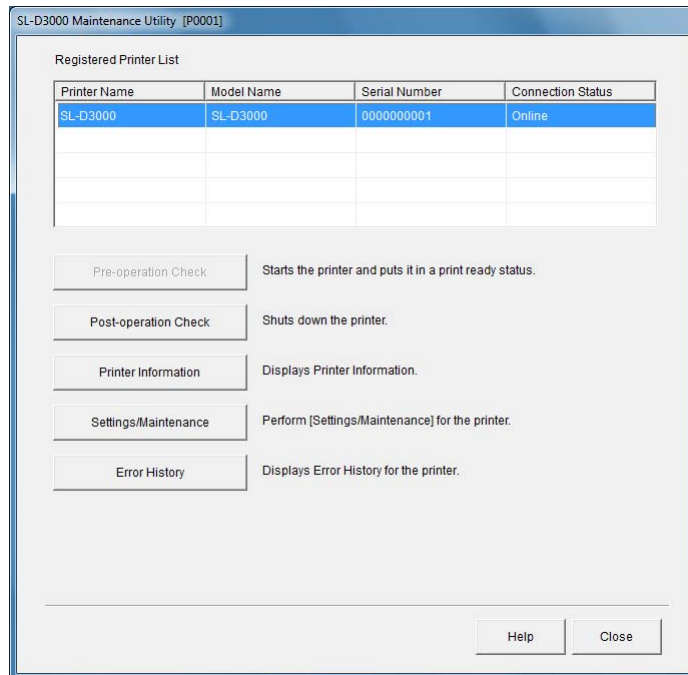
Setup and Maintenance

SL-D3000 Maintenance Utility screen (when using as an Administrator):
"...[AD]" is displayed in the title bar on screens in Administrator's mode.

You can perform a **Pre-operation Check**, **Post-operation Check**, **Printer Information**, **Settings/Maintenance**, **Acquire Log**, **Add/Delete Printer**, and check **Error History**.

In Printer Information, you can check the printer's status.

In Settings/Maintenance, you can perform adjustment/maintenance operations such as head cleaning and calibration.

In Error History, you can check errors that have occurred in the printer, and information.

In Acquire Log, you can save log files.
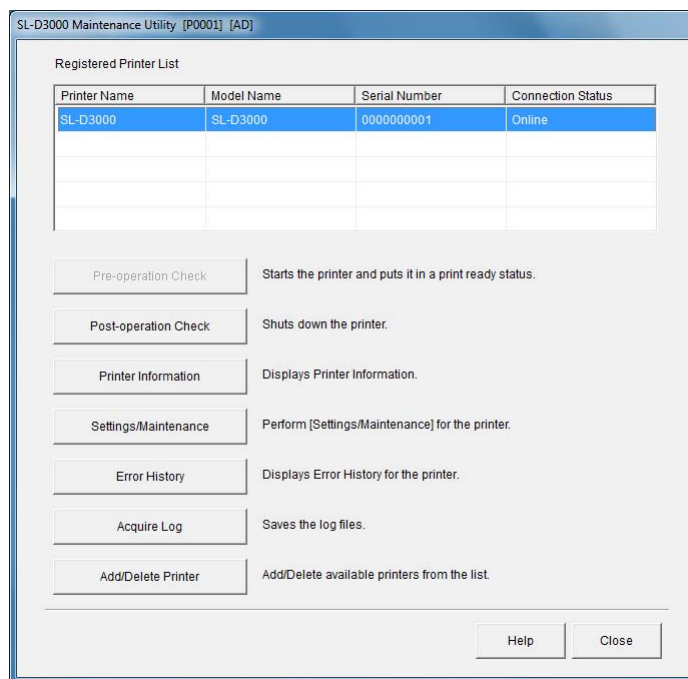
Available functions:

Button	Settings/Maintenance Functions Menu			Operator	Adminis-trator
	Large Items	**Medium Items**	**Small Items**		
Pre-operation Check	-	-	-	Yes	Yes
Post-operation Check	-	-	-	Yes	Yes
Printer Information	-	-	-	Yes	Yes

Setup and Maintenance

Button	Settings/Maintenance Functions Menu			Operator	Administrator
	Large Items	**Medium Items**	**Small Items**		
Settings/Maintenance	System Operation Settings/Inspections (01)	Installation Information Settings (011)	-	No	Yes
		Settings for Optional Equipment (012)	-	No	Yes
		Printer Operation Settings(013)	-	No	Yes
	Print Condition Settings/Inspections (02)	Image Quality Settings (021)	-	No	Yes
		Paper Settings (022)	-	Yes	Yes
	CR Unit Adjustment/Maintenance (03)	Head Cleaning (031)	Auto Cleaning (0311)	Yes	Yes
			Nozzle Check (0312)	Yes	Yes
			Periodic Nozzle Check Settings (0313)	No	Yes
		Color Calibration (034)	Calibration (0341)	No	Yes
			History of Correction Values (0342)	No	Yes
			Create Calibration (0343)	No	Yes
		Gray Adjustment (035)	-	No	Yes
		Head Maintenance (036)		No	Yes
	Printer Adjustment/Maintenance (04)	Operation History (044)	-	Yes	Yes
		Parts Replacement History (045)	Register Replacement Date for Periodically Replaced Parts (0451)	No	Yes
			Clear Counter 1 (0452)	No	Yes
		Paper Feed-Related Adjustment (048)	Paper Feed Amount Durability Correction (0483)	No	Yes
	Software Settings (05)	System Language Settings (051)	-	No	Yes
Error History	-	-	-	Yes	Yes
Acquire Log	-	-	-	No	Yes
Add/Delete Printer	-	-	-	No	Yes

Tip:
See the "SL-D3000 Operation Guide" for more information on items that are available to operators.

☞ *"SL-D3000 Operation Guide" - "Setup and Maintenance"*

Pre-operation Check

Click **Pre-operation Check** on the Client PC to start the printer.

In Pre-operation Check, the printer starts after the items that need to be checked manually have been displayed. Furthermore, when Printer PC is connected to the printer, Printer PC starts automatically.
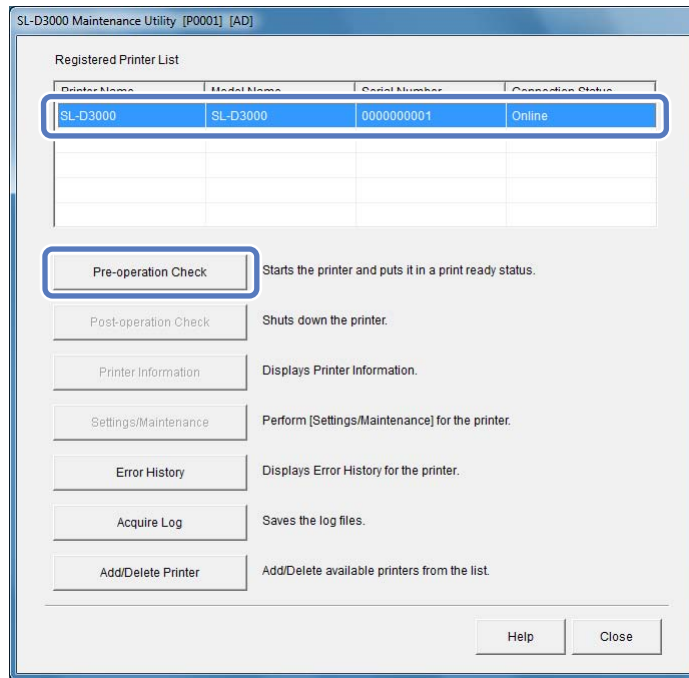
Tip:
See the "SL-D3000 Operation Guide" for more information on the Pre-operation Check.

∠⦿ *"SL-D3000 Operation Guide" - "Starting the Printer"*

Post-operation Check

Click **Post-operation Check** on the Client PC to shut down the printer.

When the printer is shut down in Post-operation Check, and Printer PC is connected to the printer, Printer PC closes automatically.
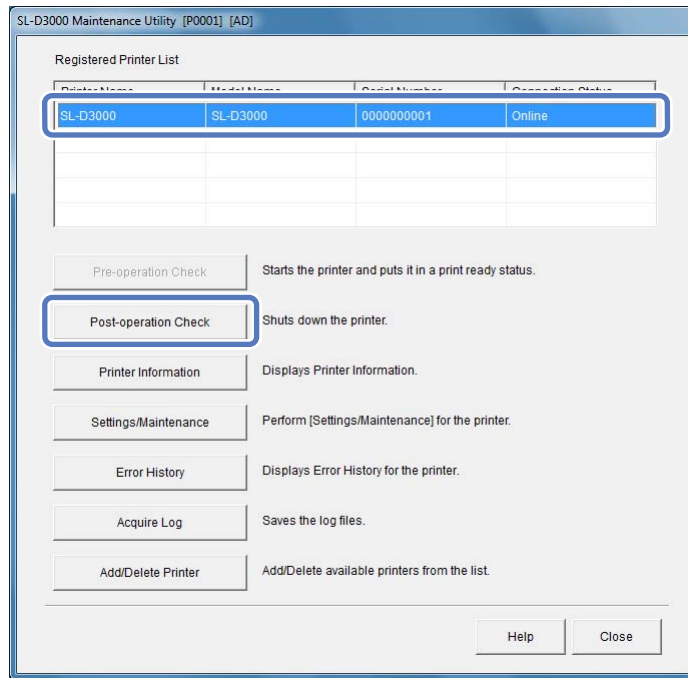
Tip:
See the "SL-D3000 Operation Guide" for more information on the Post-operation Check.

∠ *"SL-D3000 Operation Guide" - "Shutting down the Printer"*

Printer Information

You can confirm various types of printer information.

Checking Printer Information

On the Printer Information screen, you can check the printer's settings, remaining amount of consumables, and so on.

1 Select the printer you want to use from the Registered Printer List, and then click **Printer Information**.
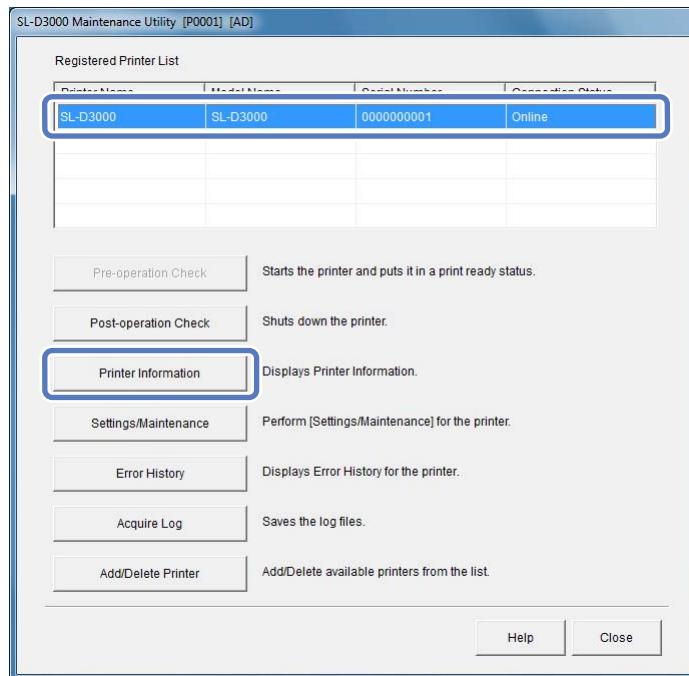
> *Tip:*
> *In the following situations, the Printer Information button is unavailable.*
>
> ❏ *When the printer's Pre-operation Check is not complete*
>
> ❏ *When the cable to the printer is disconnected*
>
> ❏ *When the printer's Power switch is off*

Printer Information

2 On the Printer Information screen, you can check the printer's settings, remaining amount of consumables, and so on.

Item	Explanation	
Printer Name	Displays the printer name.	
Printer Status	Displays the printer status.	
	Standby	The printer is ready to print.
	Printing	The printer is printing.
	Performing Settings/Maintenance	The printer is performing maintenance operations such as a nozzle check.
	An error has occurred	An error has occurred in the printer.
	Initializing	The printer is initializing.
	Shutting down	The printer is shutting down.
	Offline	The printer is not turned on, or is not connected.
Image Quality Settings	Displays the image settings.	
	Standard	Prints at standard (720 dpi) quality.
	High Image Quality	Prints at high resolution (1440 dpi) quality.
Paper Information (Front/Rear)	Displays information about the loaded paper.	
	"-" is displayed when paper is not loaded or information cannot be acquired from the printer.	

Printer Information

Item	Explanation
Ink Level	Displays the remaining amount of ink. "Caution" is displayed when ink is running low. "Error" is displayed when the amount of ink remaining has fallen below the minimum limit. The ink cartridge is grayed out when the ink cartridge is not installed, or if there is a problem with the ink cartridge. If an non-genuine cartridge is installed, a message is displayed indicating that it is not covered by the warranty.
Trimmed Waste Paper Box Usage	Displays the usage status of the trimmed waste paper box. "-" is displayed when information cannot be acquired from the printer.
Clear Usage	Click to clear the trimmed waste paper box usage. When you remove the trimmed waste paper from the trimmed waste paper box, click **Clear Usage** to reset the usage.
Maintenance Tank Space	Displays the amount of free space in the maintenance tank as a bar. When information cannot be acquired from the printer, the bar is not displayed.
Settings/Maintenance	Click to open the Settings/Maintenance screen. ☞ "System Operation Settings/Inspections" on page 20 ☞ "Print Condition Settings/Inspections" on page 24 ☞ "CR Unit Adjustment/Maintenance" on page 27 ☞ "Printer Adjustment/Maintenance" on page 64 ☞ "Software Settings" on page 68
Help	Click to display the Help.
Close	Closes the Printer Information screen.

> *Note:*
> *This product has been adjusted based on genuine ink cartridges. If you use non-genuine cartridges, the print results may be faint or the amount of ink remaining may not be detected correctly.*

> *Tip:*
> *Only the Dual Roll Model supports front roll paper. For the Single Roll Model, information is not displayed under the front paper item. See the information for rear roll paper.*

This completes this section.

Changing User Levels

You can change the user level from Operator mode to Administrator mode.

1 Display the SL-D3000 Maintenance Utility or the Printer Information screen.
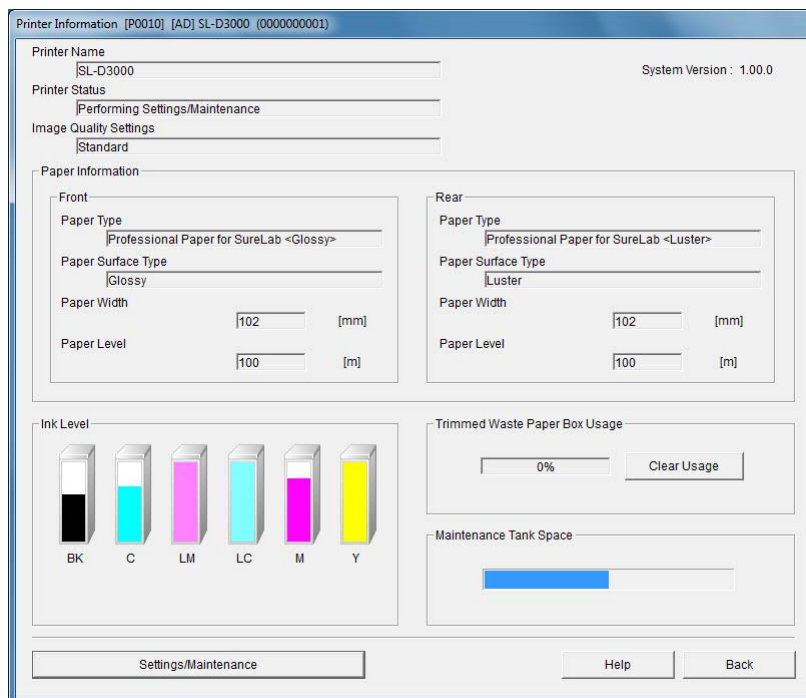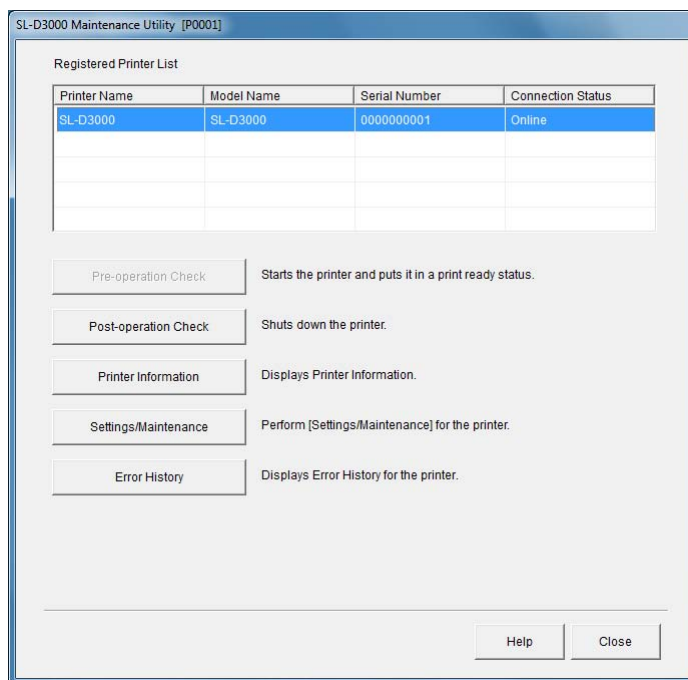
2 While holding down the **Ctrl** and **Alt** keys on the keyboard, press **S** (or **s**).

The Enter Password screen is displayed.

3 Enter the password, and then click **OK**.

The user level is changed to Administrator mode.

```
Enter Password  [P0014]

    Enter the password.

    [****              ]

        [   OK   ]      [  Cancel  ]
```

Tip:
❏ *The administrator password is "0000".*

❏ *Restart this SL-D3000 Maintenance Utility when switching from Administrator mode to Operator mode.*

Settings/Maintenance

You can perform maintenance operations such as Print Head Unit cleaning and calibration, as well as manage settings.

Performing Maintenance

You can select each maintenance function on the Settings/Maintenance screen.

When performing maintenance in Settings/Maintenance, make sure that the ⏻ light on the printer's Operation panel is on before starting operations.

1 Select the printer you want to use from the Registered Printer List, and then click **Settings/Maintenance**.
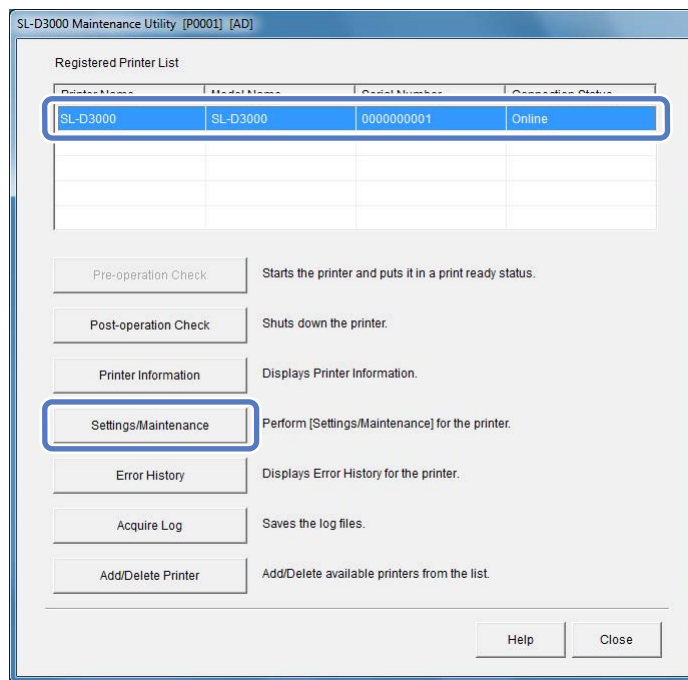
Tip:
❏ *In the following situations, the Settings/Maintenance button is unavailable.*

 ❏ When the cable connected to the printer is disconnected

 ❏ When the printer's Power switch is off

 ❏ When the printer's pre-operation check is not complete

❏ *The Settings/Maintenance screen opens when you click **Settings/Maintenance** on the Printer Information screen.*

2 Select the function you want to use.

You can make settings by selecting a function from the menu on the left.

3 Click **Back** to close the Settings/Maintenance screen.

4 When the Printer Information screen is displayed, click **Back** to close the screen.

This completes this section.

Settings/Maintenance

Available functions on the Settings/Maintenance screen:

Large Items	Medium Items	Small Items	Setting Contents
System Operation Settings/Inspections (01)	Installation Information Settings (011)	-	Displays the printer's information. ⌨ "Installation Information Settings" on page 20
	Settings for Optional Equipment (012)	-	Change the settings for the optional equipment. ⌨ "Settings for Optional Equipment" on page 21
	Printer Operation Settings (013)	-	Make settings for power saving and the warning buzzer. ⌨ "Printer Operation Settings" on page 23
Print Condition Settings/Inspections (02)	Image Quality Settings (021)	-	Select the image quality mode. ⌨ "Image Quality Settings" on page 24
	Paper Settings (022)	-	Check information about the loaded paper. ⌨ "Paper Settings" on page 25
CR Unit Adjustment/Maintenance (03)	Head Cleaning (031)	Auto Cleaning (0311)	Detect clogged nozzles and clean the Print Head Unit automatically. ⌨ "Auto Cleaning" on page 29
		Nozzle Check (0312)	Check for clogged nozzles and clean the Print Head Unit manually. ⌨ "Nozzle Check" on page 30
		Periodic Nozzle Check Settings (0313)	Set whether or not to perform auto nozzle check. ⌨ "Periodic Nozzle Check Settings" on page 34
	Color Calibration (034)	Calibration (0341)	Perform calibration with a color measurement device. ⌨ "Calibration" on page 37
		History of Correction Values (0342)	Write the correction value acquired through calibration. ⌨ "History of Correction Values" on page 45
		Create Calibration (0343)	Perform calibration for the standard printer, and then create the standard value. ⌨ "Create Calibration" on page 46
	Gray Adjustment (035)	-	Adjust the Color Balance, Density, and Gradation. ⌨ "Gray Adjustment" on page 50
	Head Maintenance (036)		Clean the print head unit and the wipers for the print head. To perform this type of cleaning, you need the optional Print Head Maintenance Kit (C12C890991). For more details, see the User's Guide supplied with the Print Head Maintenance Kit.

Settings/Maintenance

Large Items	Medium Items	Small Items	Setting Contents
Printer Adjustment/Maintenance (04)	Operation History (044)	-	Check errors that have occurred, the number of prints, and the number of head cleaning operations in the printer. U "Operation History" on page 64
	Parts Replacement History (045)	Register Replacement Date for Periodically Replaced Parts (0451)	Check the replacement date for parts that need to be replaced. U "Register Replacement Date for Periodically Replaced Parts" on page 65
		Clear Counter 1 (0452)	Check each counter. U "Clear Counter 1" on page 65
	Paper Feed-Related Adjustment (048)	Paper Feed Amount Durability Correction (0483)	Adjust the amount of paper feed. U "Paper Feed-Related Adjustment" on page 66
Software Settings (05)	System Language Settings (051)	-	Set the date and time, language, and units for the UI display. U "System Language Settings" on page 68

System Operation Settings/Inspections

In System Operation Settings/Inspections (01) on the Settings/Maintenance screen, you can check the contents of the Installation Information Settings (011) and make settings for Settings for Optional Equipment (012) and Printer Operation Settings (013).

Installation Information Settings

Click **Installation Information Settings** (011) from System Operation Settings/Inspections (01) to display the screen. Here you can check the printer's information.
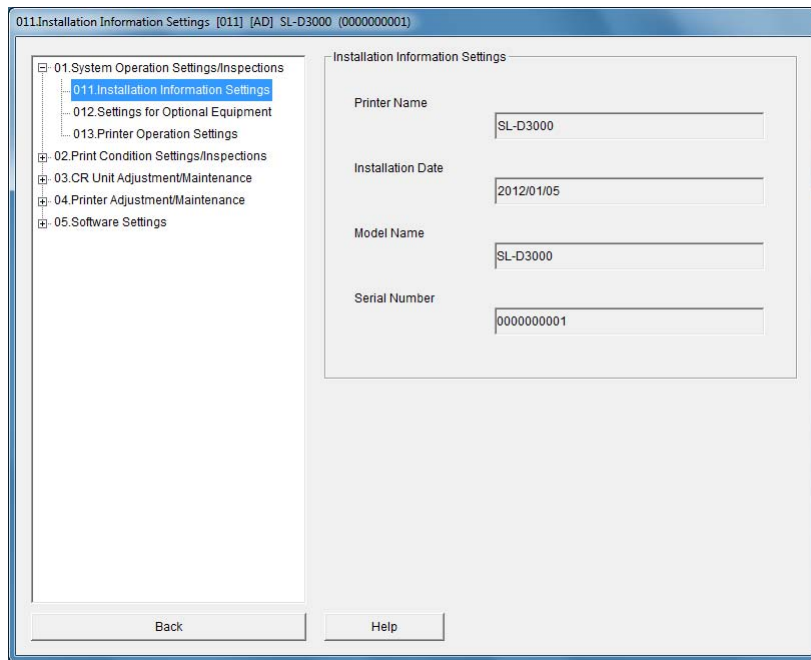
Item	Explanation
Printer Name	Displays the printer name. Set by service personnel.
Installation Date	Displays the installation date. Set by service personnel.
Model Name	Displays the model name.
Serial Number	Displays the printer's serial number.
Back	Click to close the Settings/Maintenance screen.
Help	Click to display the Help.

Settings for Optional Equipment

Click **Settings for Optional Equipment** (012) from System Operation Settings/Inspections (01) to display the screen. Make settings for optional equipment that has been installed.

After changing settings, click **Apply** to apply the changes.
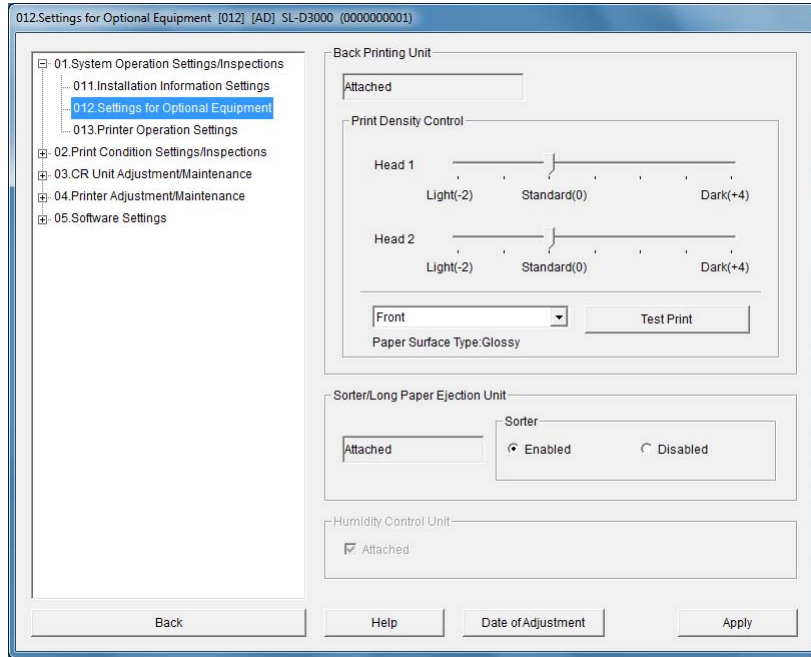
Item		Explanation
Back Printing Unit	Attached/Not Attached	Displays the installation status for the back printing unit.
	Print Density Control (Head 1/Head 2)	Adjust the print density for the back printing unit heads in seven levels. This can be set when the back printing unit is Attached.
	Select Roll Paper	Select the roll paper feeder you want to use for the test print. This can be selected when the back printing unit is Attached and paper is loaded.
	Paper Surface Type	Displays the Paper Surface Type of the paper loaded in the roll paper feeder. "-" is displayed when roll paper is not loaded.
	Test Print	Click to perform a test print. This can be performed when the back printing unit is Attached and the roll paper feeder is selected. This cannot be performed when the Paper Surface Type does not support back printing.

Item		Explanation
Sorter/Long Paper Ejection Unit	Attached/Not Attached	Displays the installation status for the Sorter/Long Paper Ejection Unit.
	Sorter	Select Enabled or Disabled for the sorter. This can be set when the Sorter/Long Paper Ejection Unit is Attached. When changing from Disabled to Enabled, you need to restart the printer.
Humidity Control Unit	Attached/Not Attached	Displays the installation status for the humidity control unit. Set by service personnel.
Back		Click to close the Settings/Maintenance screen.
Help		Click to display the Help.
Date of Adjustment		Displays the time when Print Density Control was last performed. You can check the changed date settings for each Paper Surface Type.
Apply		Click to apply any changed settings.

Tip:
❑ *Only the Dual Roll Model supports front roll paper. For the Single Roll Model, information is not displayed under the front paper item. See the information for rear roll paper.*

Printer Operation Settings

Click **Printer Operation Settings** (013) from System Operation Settings/Inspections (01) to display the screen. Make settings for the power saving, the warning buzzer and the completion confirmation for long length sheet printing.

After changing settings, click **Apply** to apply the changes.

Item	Explanation
Power Saving Settings	Select the time to enter sleep mode (power saving mode) after this product finishes operations. Settings: None, 5 Minutes, 10 Minutes, 15 Minutes, 30 Minutes, 1 Hour, 2 Hours
Warning Buzzer Settings	Select whether or not to sound the warning buzzer. Settings: ON/OFF
Completion Confirmation for Long Length Sheet Printing	Select whether or not to display a confirmation message (2190) when completing long length sheet printing of 12 to 18 inches (305 to 457 mm). Displays a message when completing long length sheet printing over 18 inches (457 mm). This is only available when the Sorter/Long Paper Ejection Unit is attached. Settings: Selected (the message is not displayed) / Not selected (the message is displayed)
Back	Click to close the Settings/Maintenance screen.
Help	Click to display the Help.
Apply	Click to apply any changed settings.

Print Condition Settings/Inspections

In Print Condition Settings/Inspections (02) on the Settings/Maintenance screen, you can set Image Quality Settings (021), and check Paper Information (022).

Image Quality Settings

Click **Image Quality Settings** (021) from Print Condition Settings/Inspections (02) to display the screen. Make image quality settings.

This is only available when there are no image quality settings in the application used for printing.

After changing settings, click **Apply** to apply the changes.

Item	Explanation
Standard	Set the printer's image quality to Standard (720 dpi).
	Generally, use Standard settings.
High Image Quality	Set the printer's image quality to high resolution (1440 dpi).
	When you want to print at a higher resolution than Standard, set to High Image Quality.
	Printing takes longer than in Standard mode, as priority is given to image quality.
	This is only available when Glossy or Luster is set as the Paper Surface Type.
Back	Click to close the Settings/Maintenance screen.
Help	Click to display the Help.
Apply	Click to apply any changed settings.

Paper Settings

Click **Paper Settings** (022) from Print Condition Settings/Inspections (02) to display the screen.

You can check the paper information loaded in the front roll paper feeder or the rear roll paper feeder, and change the remaining amount of paper.
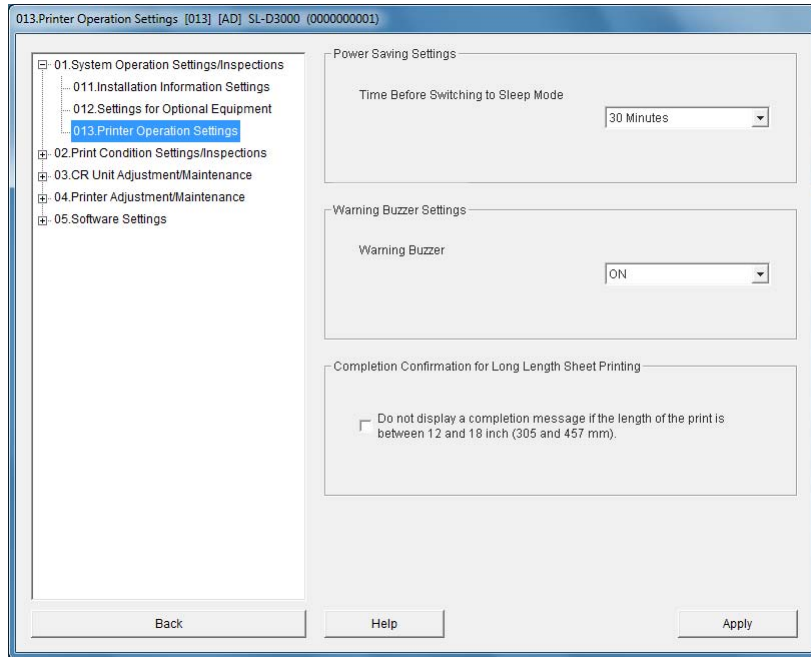
> *Tip:*
> *Only the Dual Roll Model supports front roll paper. For the Single Roll Model, information is not displayed under the front paper item. See the information for rear roll paper.*
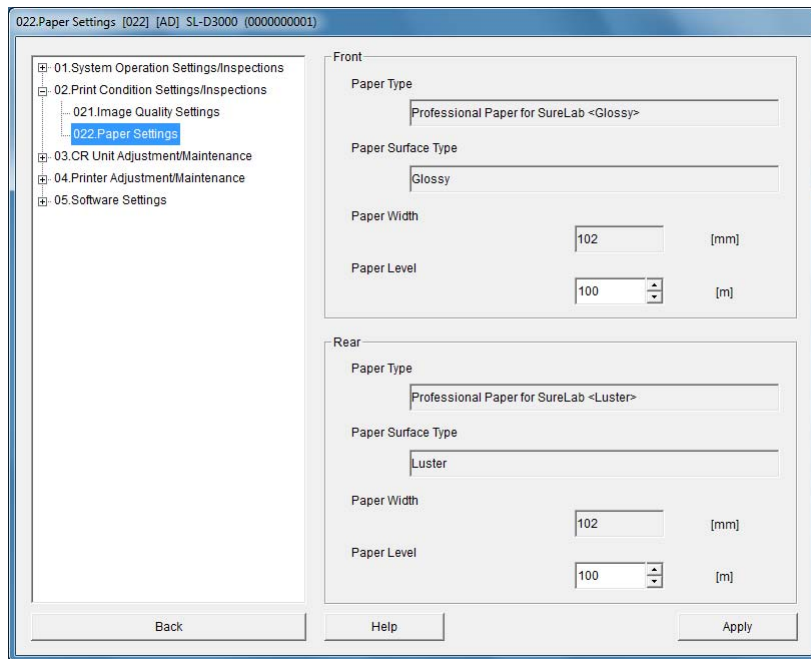
Item		Explanation
Front	Paper Type	Displays the type of paper (the paper name) loaded in the front roll paper feeder.
	Paper Surface Type	Displays the paper surface type (the processing type for the paper surface) loaded in the front roll paper feeder.
	Paper Width	Displays the width of the paper loaded in the front roll paper feeder. Displays the width detected by the printer.
	Paper Level	Displays the remaining amount of paper loaded in the front roll paper feeder. If the displayed amount of paper remaining differs from the actual amount, enter the correct amount of paper and then click **Apply**.
Rear	Paper Type	Displays the type of paper (the paper name) loaded in the rear roll paper feeder.
	Paper Surface Type	Displays the paper surface type (the processing type for the paper surface) loaded in the rear roll paper feeder.
	Paper Width	Displays the width of the paper loaded in the rear roll paper feeder. Displays the width detected by the printer.
	Paper Level	Displays the remaining amount of paper loaded in the rear roll paper feeder. If the displayed amount of paper remaining differs from the actual amount, enter the correct amount of paper and then click **Apply**.

Settings/Maintenance

Item	Explanation
Back	Click to close the Settings/Maintenance screen.
Help	Click to display the Help.
Apply	Click to apply any changed settings.

CR Unit Adjustment/Maintenance
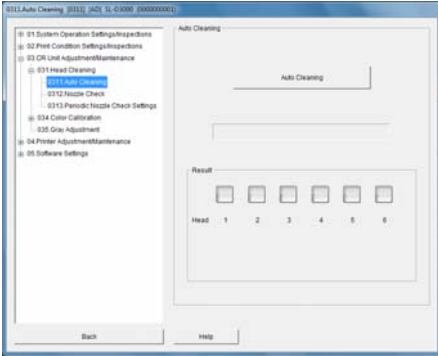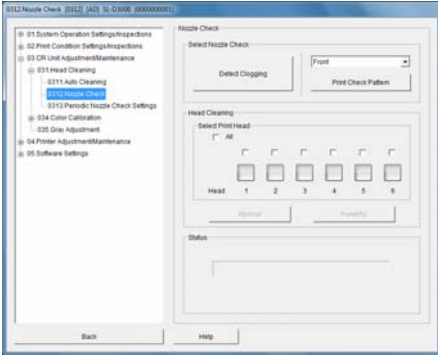
In CR Unit Adjustment/Maintenance (03) on the Settings/Maintenance screen, you can perform Head Cleaning (031) and Color Calibration (034).

When performing maintenance in Settings/Maintenance, make sure that the ⏻ light on the printer's Operation panel is on before starting operations.
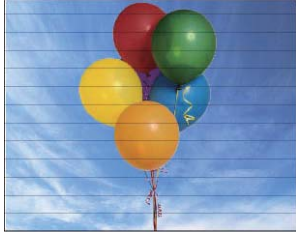
Head Cleaning

This function allows you to check for clogging in the print head, and to clear any clogged nozzles. If printing is performed while nozzles are clogged, there may be streaks in the prints or there may be a difference in color. If you notice any of these problems, follow the instructions on the next page to perform **Head Cleaning** (031).

The following two menus are available in Head Cleaning (031).

Auto Cleaning (0311)	A sensor inside the printer checks for any clogged nozzles and performs head cleaning automatically if clogging is detected.	
Nozzle Check (0312)	You can specify the clogging detection method and the cleaning method. Perform a nozzle check if the situation has not improved after performing **Auto Cleaning** (0311).	

1	**There are streaks in the prints or other problems such as a difference in color**
	<Example>

2	**Perform Auto Cleaning (0311).**		
	When all of the Result icons on the screen are ▬ "green"	When a Result icon on the screen is ▬ "yellow"	When a Result icon on the screen is ▬ "red"
		-> Perform **Auto Cleaning** (0311) again.	Go to the next step.
	-> Operations are complete.		
	If the problems in the prints are not resolved, perform clogging detection and head cleaning as described in the Notes section.	Go to the next step if the Result are not "Good" after repeating the procedure three times.	

3		**Perform Detect Clogging from Nozzle Check (0312), and then click Powerful for any of the heads that have ▬ "red" (or ▬ "yellow") icons.** **After cleaning, perform Detect Clogging.**	
		If the Result on the screen are "Good", and there are no problems in the prints	If the Result on the screen are "Good", but there are still problems in the prints
		-> Operations are complete.	-> Contact Service Support.

Notes:

When the Result of Auto Cleaning (0311) are "Good", but nozzles still appear to be clogged

*Auto Cleaning (0311) and Detect Clogging search for clogged nozzles using an electronic sensor. Therefore, it is possible that clogged nozzles were not detected by the sensor. If there is any doubt, perform **Print Check Pattern** from Nozzle Check (0312), visually check for clogged nozzles, and then perform cleaning as necessary.*

Auto Cleaning

From the CR Unit Adjustment/Maintenance (03) menu, click **Auto Cleaning** (0311) from Head Cleaning (031) to display the screen.
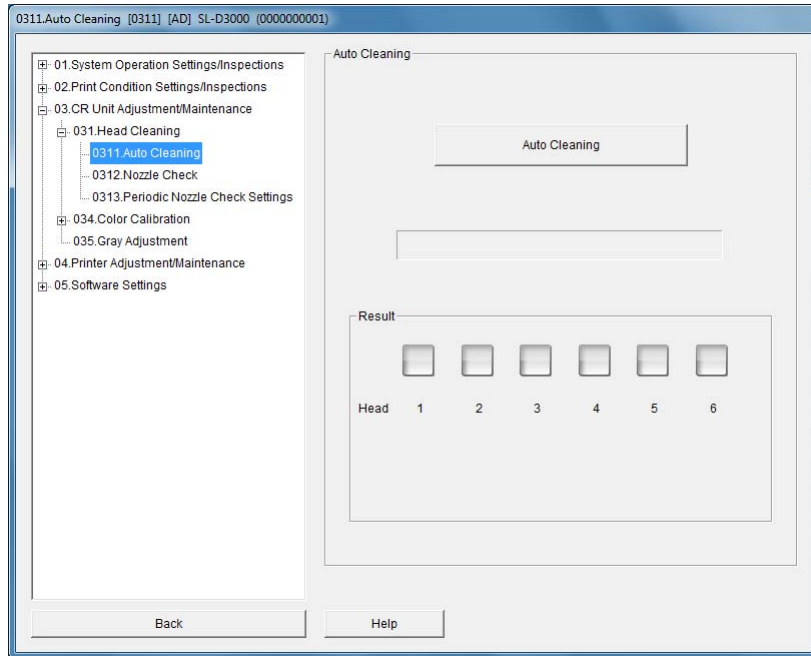
1 Click **Auto Cleaning**.

Nozzle check begins, and cleaning is performed as necessary.

This may take some time depending on the status of the nozzles.

2 Check the status of each head displayed in the Result.

When the nozzles are cleared, "Good" is displayed.

If nozzles are clogged, a message is displayed that indicates you need to clean the Print Head Unit again. Perform necessary cleaning.

Reading the Results:

Color	Explanation
Green	The nozzles are not clogged.
Yellow	Clogging is detected. Perform **Auto Cleaning** (0311) again.
Red	Clogging is detected. Perform **Detect Clogging** from Nozzle Check (0312), and then perform **Powerful** cleaning again for heads indicated by red.
White	Auto Cleaning is still in progress.

Nozzle Check

From the CR Unit Adjustment/Maintenance (03) menu, click **Nozzle Check** (0312) from Head Cleaning (031) to display the screen.

This function allows you to check for clogged nozzles in the Print Head Unit. The printer automatically detects clogging and displays the information on the screen. You can also print a check pattern for confirmation.

After performing a nozzle check, specify the type on the screen to perform head cleaning if necessary.
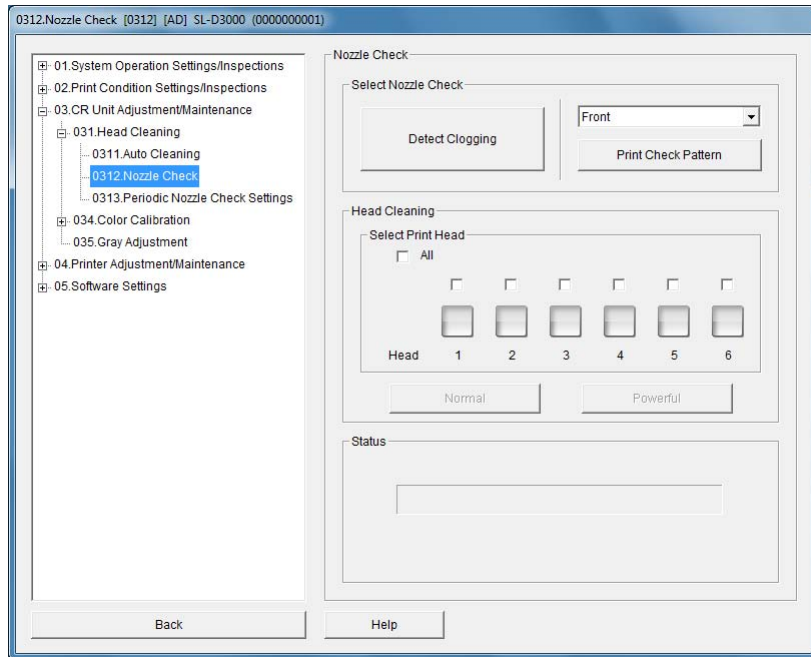
Checking with Detect Clogging

The printer checks the status of the nozzles, and displays any clogged nozzles on the screen. Perform Print Head Unit cleaning according to the check results.

> *Tip:*
> *The method for confirming the status of the nozzles also includes the method for printing a check pattern.*
>
> ☞ *"Printing the check pattern" on page 32*

1 Click **Detect Clogging**.

Clogging detection starts, and the status of each nozzle is indicated by the colors.

Clogging detection takes about one minute.

Reading the Results:

Color	Explanation
Green	The nozzles are not clogged.
Yellow	Clogging is detected. Perform **Normal** cleaning.
Red	Clogging is detected. Perform **Powerful** cleaning.
Gray	Head cleaning is complete.
White	Detect Clogging is still in progress.

2 Select the head where clogged nozzles were detected, and then click **Normal** or **Powerful**.

To clean all of the print head units, check **All**.

The color changes to gray for the heads that have been cleaned.

Item	Explanation
Normal	Cleans the surface of the head, and clears clogged nozzles.
Powerful	Cleans more powerfully if the results of Detect Clogging are still red or nozzles are clogged after repeating head cleaning several times. Because Powerful consumes more ink compared to Normal, prepare new ink cartridges before performing cleaning if ink levels are low.

3 Check the results after cleaning.

Go back to step **1**, and then use **Detect Clogging** to check the status of the nozzles.

If any nozzles are clogged, perform step **2** to clean the nozzles.

Printing the check pattern

Print a check pattern, and then check for clogged nozzles. Perform Print Head Unit cleaning according to the check results.

1 Select the roll paper feeder you want to use for printing.

This can be selected when paper is loaded.

2 Click **Print Check Pattern**.

The check pattern is printed.

3 Check the print results.

See the illustration below for more information on reading the print results.

If there are any gaps in the check pattern, you need to perform head cleaning.

Result: Good

There are no gaps in the check pattern. The nozzles are not clogged.
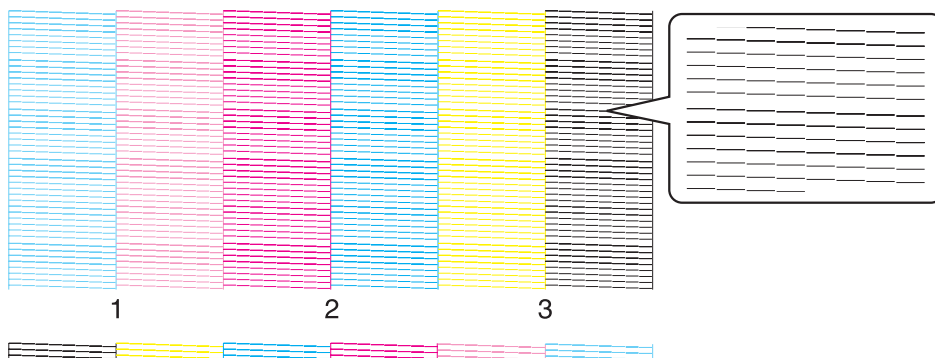
Result: Nozzles are clogged

There are gaps in the check pattern. Nozzles are clogged. Perform cleaning.
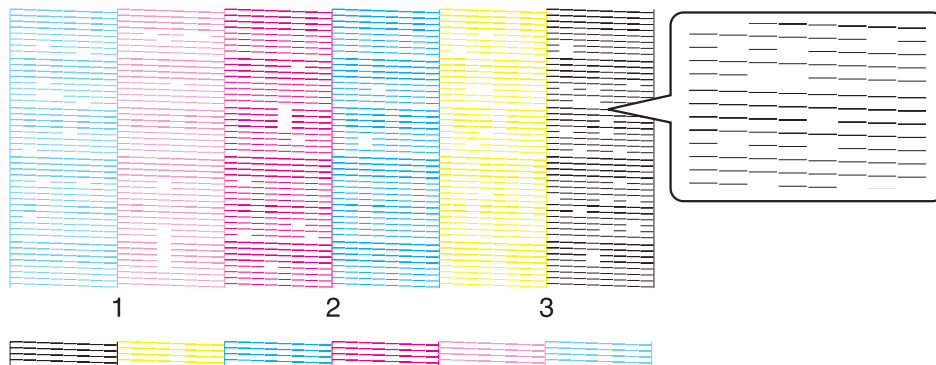
> *Tip:*
> *The numbers under the check pattern (1, 2, 3, ...) indicate the head number.*

4 Select the head that has clogged nozzles, and then click **Normal** or **Powerful**.

To clean all of the print head units, check **All**.

Item	Explanation
Normal	Cleans the surface of the head, and clears clogged nozzles.
Powerful	Select if nozzles are still clogged after performing Normal head cleaning several times. Because Powerful consumes more ink compared to Normal, prepare new ink cartridges before performing cleaning if ink levels are low.

5 After cleaning, check the results using nozzle check.

Go back to step **1**, and then print a check pattern to check the status of the nozzles.

If any nozzles are clogged, perform step **4** to clean the nozzles.

> *Tip:*
> *The method for confirming the status of the nozzles also includes Detect Clogging in which the printer automatically detects clogging.*
>
> U *"Checking with Detect Clogging" on page 31*

Periodic Nozzle Check Settings

From the CR Unit Adjustment/Maintenance (03) menu, click **Periodic Nozzle Check Settings** (0313) from Head Cleaning (031) to display the screen.

Set whether or not to perform auto nozzle check.

We recommend that this is set to ON, because if it is set to OFF the user needs to manually check for clogging.

After changing settings, click **Apply** to apply the changes.

Item	Explanation
ON	Nozzle Check is performed automatically during Pre-operation Check, when a print order starts and when a print order finishes.
Perform [Auto Cleaning] during Pre-operation Check.	Select whether or not to perform cleaning automatically if the nozzle check detects a clog in the print head during the Pre-operation Check. When selected, cleaning is performed automatically and a clogging detected message (1501) is only displayed if the clog is not cleared. When performing cleaning, the time needed for the Pre-operation Check is increased by a few minutes. When not selected, a message is displayed without performing cleaning if the nozzle check detects a clog in the print head during the Pre-operation Check.
OFF	Auto nozzle check is not performed.
Back	Click to close the Settings/Maintenance screen.
Help	Click to display the Help.
Apply	Click to apply any changed settings.

Color Calibration

> ⚠ *Warning:*
> *If the Maintenance Utility shuts down abnormally and does not operate while performing color calibration, connect the printer and the Client PC, and then follow the steps below to restart the Printer PC.*
>
> *1. Perform a printer emergency stop.*
> *⌧ "SL-D3000 Operation Guide" - "Shutting down the Printer in an Emergency"*
>
> *2. Restart the Client PC and the Printer PC.*
>
> *3. Turn on the printer.*
> *⌧ "SL-D3000 Operation Guide" - "What to do after an Emergency Stop"*

Colors on different printers may differ depending on environmental changes and time-dependent changes. When using multiple printers, colors may differ among printers of the same model. The color calibration function measures the printing results, creates a correction value using the difference from the standard color (standard calibration value), registers the correction value to the Printer PC, and corrects colors when printing.

The following two methods of color correction use different standard calibration values.

❑ When reducing the color differences from a standard printer
Uses the calibration file created by the standard printer.

❑ When reducing the color differences between multiple printers
Use the calibration file created by the main printer. You can select the main printer from your printers.

Procedures for writing a correction value when reducing the color differences from a standard printer

Step	Procedure	Reference Page
1	Selecting the printer for which you want to correct color differences, and performing **Settings/Maintenance**	⌧ "Performing Maintenance" on page 15
2	Printing a correction chart with the initial calibration file provided	⌧ "Calibration" on page 37
3	Measuring a correction chart with the color measurement device	
4	Creating and verifying the correction value	
5	Writing the correction value file to the Printer PC	

Settings/Maintenance

Procedures for writing a correction value when reducing the color differences between multiple printers

Step	Procedure	Reference Page
1	Selecting the main printer, and performing **Settings/Maintenance**	☞ "Performing Maintenance" on page 15
2	Creating the calibration file with the printer	☞ "Create Calibration" on page 46
3	Selecting the printer for which you want to correct color differences, and performing **Settings/Maintenance** (*)	☞ "Performing Maintenance" on page 15
4	Printing a correction chart with the calibration file created by the main printer	☞ "Calibration" on page 37
5	Measuring the correction chart with a color measurement device	
6	Creating and verifying the correction value	
7	Writing the correction value file to the Printer PC	

(*) To correct multiple printers, repeat steps 3 to 7.

Note:

❑ *You need a color measurement device to perform calibration. The following models are supported.*

  ❑ The "i1Pro" from X-Rite (with or without a UV filter)

  ❑ The "i1iSis" from X-Rite

❑ *When performing calibration, make sure you use paper with a width of 8 inches, 10 inches, 12 inches, or 210 mm.*

❑ *When using a color measurement device, install the software for the measurement device in advance on the Client PC (the PC that will perform the calibration).*

❑ *Do not touch the printable side of the correction chart or the verification chart. Moisture and oils from your hands can affect the color measurement results.*

❑ *Consult service personnel for more information on preparing and setting up the color measurement device.*

Calibration

Click **Calibration** (0341) from Color Calibration (034) to display the screen.
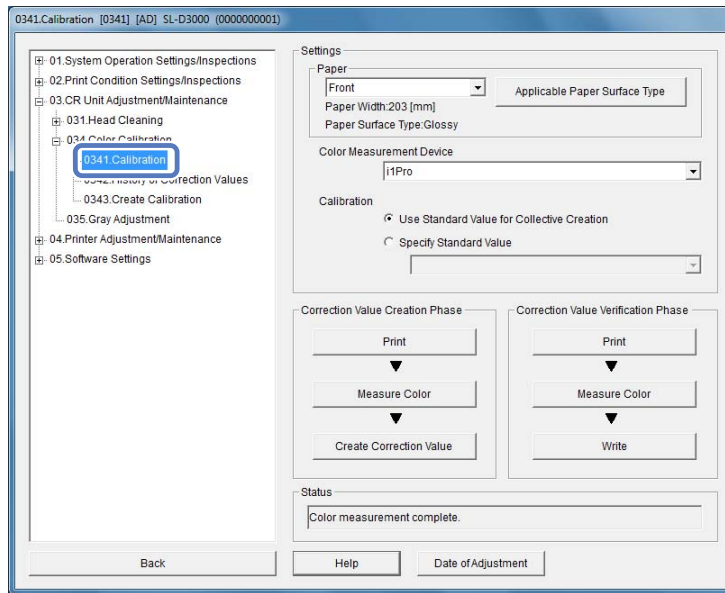
You can perform calibration by using the following work flow.

Create Correction Value	Print	Print a correction chart: Prints a chart for adjustment.
	Measure Color	Measure color for the correction chart: Perform color measurement for the printed chart on the Client PC with a connected color measurement device.
	Create Correction Value	Creating a correction value: Create a correction value file.

⇩

Correction Value Verification	Print	Print a verification chart: Prints a verification chart.
	Measure Color	Measure color for the verification chart: Perform color measurement for the printed chart on the Client PC with a connected color measurement device.
	Write	Verify correction accuracy: Verify the accuracy of the created correction value to complete the correction value file creation process.

Tip:
❏ *After adjusting values for Gray Adjustment, perform* **Color Calibration***, and then make the settings again.*
  U *"Gray Adjustment" on page 50*

❏ *Click* **Date of Adjustment** *to display the time when it was last adjusted. You can check the changed date settings for each Paper Surface Type.*

Print a correction chart

1 Select the roll paper feeder used for printing in Paper.

Displays the Paper Width and Paper Surface Type for the paper loaded in the selected roll paper feeder.
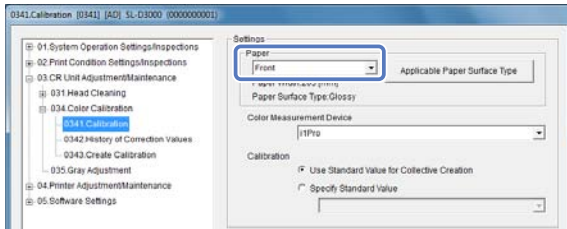
> **Tip:**
> ❑ *Click **Applicable Paper Surface Type** to check the relations between the paper used for creating a correction value and the paper applied the created correction value.*
>
> ❑ *Only the Dual Roll Model supports front roll paper. For the Single Roll Model, see the information for rear roll paper.*

2 Select the color measurement device.

3 Select the standard value you want to use.

When collectively creating the correction values that will be compatible with each paper surface type, check **Use Standard Value for Collective Creation**, and then select the standard value from the list. When using a standard value for each paper surface type, check **Specify Standard Value**, and then select the standard value from the list.

> **Note:**
> *When collectively creating the correction values, make sure you use Glossy paper.*

> **Tip:**
> *The initial calibration file provided contains standard values for a standard printer. To minimize the color difference between multiple printers, check **Specify Standard Value**, and then select the standard value file created by the main printer.*
> U *"Create Calibration" on page 46*

4 Click **Print** from Correction Value Creation Phase.

A confirmation screen is displayed.
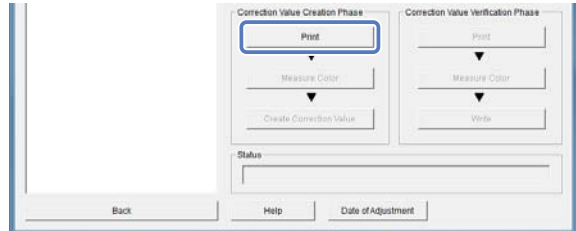
5 Click **Yes**.

Click **No** to cancel printing.

For Use Standard Value for Collective Creation, a total of three charts are printed. These include standard and high image quality for Glossy/Luster, and standard for Matte.
For Specify Standard Value using Glossy/Luster surface type, a total of two charts are printed. These include standard and high image quality.
For Specify Standard Value using Matte surface type, one standard chart is printed.

> **Tip:**
> ❑ *Nozzle Check is performed automatically before printing. If clogging is detected in the head, Print again after cleaning the head and clearing the clogged nozzles.*
> U *"Head Cleaning" on page 27*
>
> ❑ *The number of charts printed varies depending on the settings and the paper.*

6 The following screen is displayed after printing the first sheet. Follow the on-screen instructions, and then click **OK**.

The charts the second sheet and after are printed.

Note:
Do not allow the printed correction charts to overlap while drying. The color tone of the overlapped section may differ, leading to improper calibration.

Tip:
If the confirmation message is set not to display in Completion Confirmation for Long Length Sheet Printing from Printer Operation Settings, this message is not displayed.
U *"Printer Operation Settings" on page 23*

7 Wait for 30 minutes until drying is complete.

Make sure the printed correction charts do not overlap during the drying process.

Check the the drying time displayed on Status.

When the drying time reaches 0, Drying complete. is displayed, and the Measure Color button becomes available.
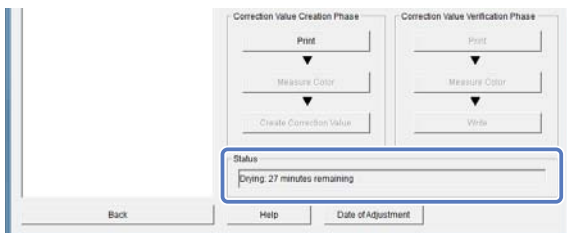
When the printed chart is dry, perform color measurement.

Operations may differ depending on the color measurement device you use.

U "Correction chart color measurement (for the "i1Pro")" on page 40

U "Correction chart color measurement (for the "i1iSis")" on page 42

Correction chart color measurement (for the "i1Pro")

1 Check that the color measurement device you want to use is connected.

> *Tip:*
> *For more information on color measurement device, see the document supplied with the device.*

2 Click **Measure Color** from Correction Value Creation Phase.
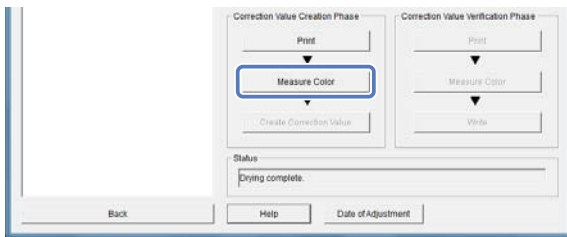
3 Place the color measurement device on the calibration base plate, and then click **OK**.

Performs color measurement for the white calibration tile.
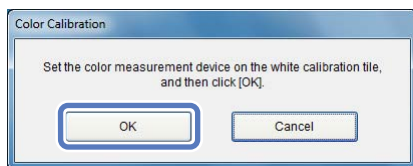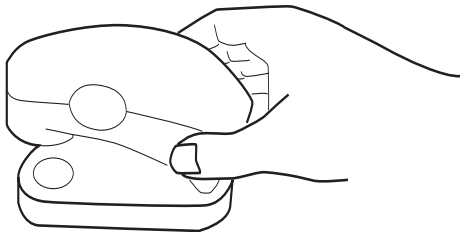
4 Place the correction chart that matches the color chart ID and preset ID displayed on the screen on the measurement backup board supplied with the color measurement device.

Place the chart on white paper if there is no backup board available for measurement.
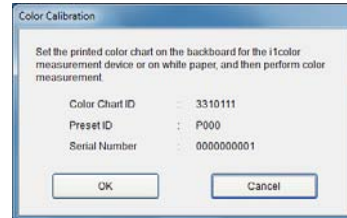
> *Tip:*
> ❑ *The color chart ID and preset ID are printed at the bottom of the correction chart.*
>
> ❑ *If a correction chart sticks out beyond the edge of the measurement backup board, cut off the margin along the cutoff line on the chart.*

5 Click **OK**.

Color measurement starts.

6 Select **Color Measurement Method**.

Select a **Line Scan** to perform color measurement for each line, or select **Spot Scan** to perform color measurement for each patch.
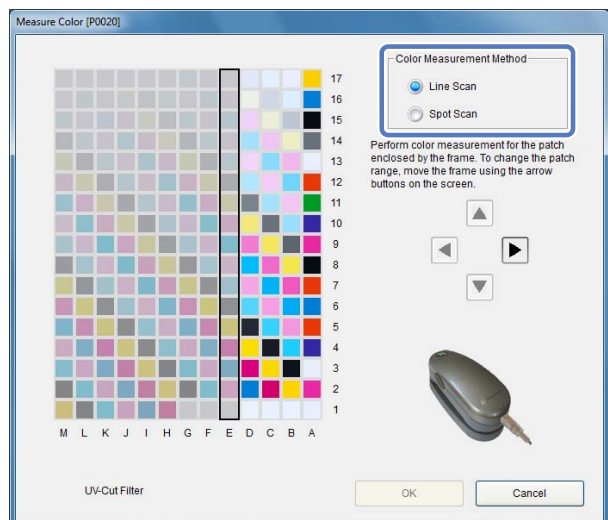
Tip:
❏ *Select **Line Scan** to perform color measurement quickly. If the results of color measurement using **Line Scan** are not what you expected, try **Spot Scan**.*

❏ *When performing color measurement with Line Scan, use the chart measurement ruler supplied with the color measurement device.*

❏ *When performing color measurement with Spot Scan, use the spot measurement guide supplied with the color measurement device.*

7 Perform color measurement in the order of the range displayed on the screen.

To change the scanning range, move by clicking the arrow buttons on the screen.

When performing color measurement in Line Scan, match the color measurement device to the measurement ruler being used, hold down the button on the side, and slowly move over the patch to scan.

When performing color measurement with Spot Scan, adjust the measurement guide so that it is over the target patch, place the color measurement device, and then press the button on the side.
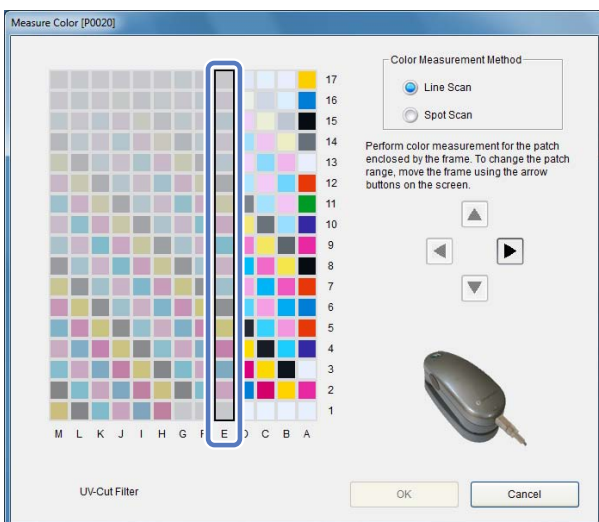
When reading is successful, the data is displayed on the screen where the correction chart is read.

When reading fails, an "X" is displayed on the screen where the correction chart is read. In this case, try reading again.

Tip:
❏ *The color measurement range differs depending on the Color Measurement Method selected.*

❏ *For more information on color measurement device, see the document supplied with the device.*

8 When color measurement is complete, click **OK**.

Continue to create the correction value.

Correction chart color measurement (for the "i1iSis")

1 Check that the color measurement device you want to use is connected.

> *Tip:*
> *For more information on color measurement device, see the document supplied with the device.*

2 Click **Measure Color** from Correction Value Creation Phase.

3 When the screen is displayed, check that the light on the right of the color measurement device is flashing green, and then insert the correction chart that matches the color chart ID and preset ID displayed on the screen into the color measurement device.

Color measurement starts.
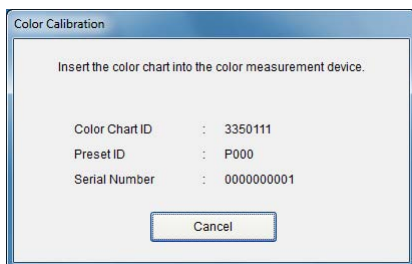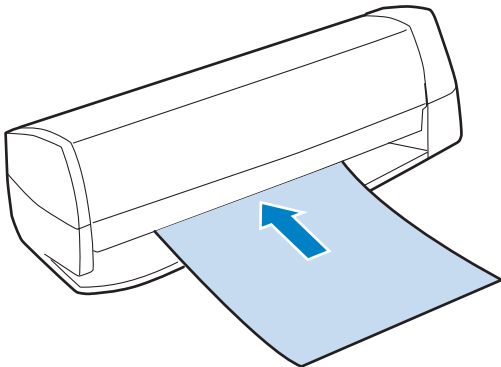
> *Tip:*
> ❑ *The color chart ID and preset ID are printed at the bottom of the correction chart.*
>
> ❑ *If the paper width of the correction chart is wider than the maximum supported width of the color measurement device, cut off the margin along the cutoff line on the chart.*

4 When color measurement is complete, click **OK**.

Continue to create the correction value.

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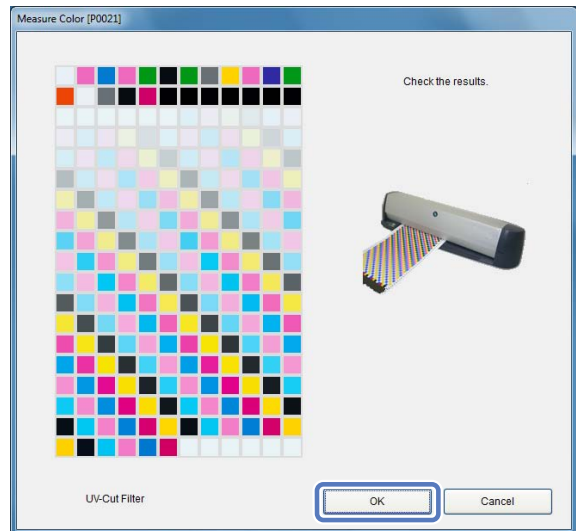
Create, verify, and write the correction value

1 Click **Create Correction Value** from Correction Value Creation Phase.

The correction value is created.
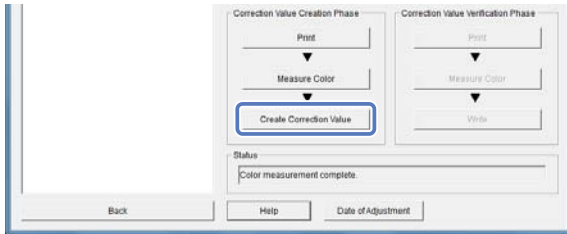
2 Click **Print** from Correction Value Verification Phase.

For Use Standard Value for Collective Creation, a total of three charts are printed. These include standard and high image quality for Glossy/Luster, and standard for Matte.
For Specify Standard Value using Glossy/Luster surface type, a total of two charts are printed. These include standard and high image quality.
For Specify Standard Value using Matte surface type, one standard chart is printed.

Tip:
- *Nozzle Check is performed automatically before printing. If clogging is detected in the head, print again after cleaning the head and clearing the clogged nozzles.*
  U *"Head Cleaning" on page 27*

- *The number of charts printed varies depending on the settings and the paper.*

3 The following screen is displayed after printing the first sheet. Follow the on-screen instructions, and then click **OK**.

The charts the second sheet and after are printed.
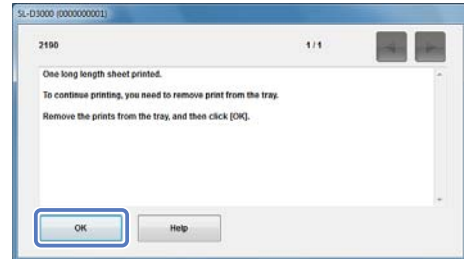
Note:
Do not allow the printed correction charts to overlap while drying. The color tone of the overlapped section may differ, leading to improper calibration.

Tip:
If the confirmation message is set not to display in Completion Confirmation for Long Length Sheet Printing from Printer Operation Settings, this message is not displayed.
U *"Printer Operation Settings" on page 23*

4 Wait for 30 minutes until drying is complete.

Make sure the printed correction charts do not overlap during the drying process.

Check the drying time displayed on Status.

When the drying time reaches 0, Drying complete. is displayed, and the Measure Color button becomes available.

5 Click **Measure Color** from Correction Value Verification Phase.
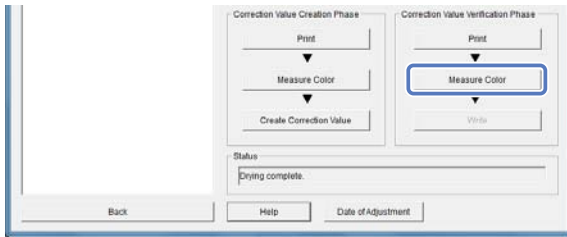
6 Perform color measurement in the color measurement device in the same way as color measurement for the correction chart.

U "Correction chart color measurement (for the "i1Pro")" on page 40

U "Correction chart color measurement (for the "i1iSis")" on page 42

**7** Click **Write** from Correction Value Verification Phase.

The screen where you can enter the name of the correction value is displayed.
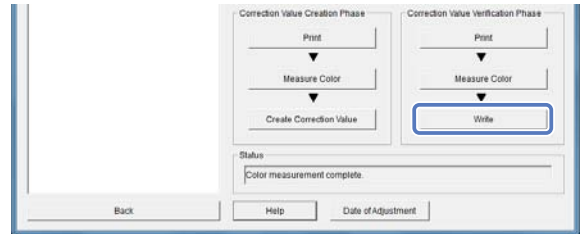
8 Enter the name of the correction value, and then click **OK**.

You cannot use the same name for more than one correction value. If the same name already exists, enter another name of the correction value.
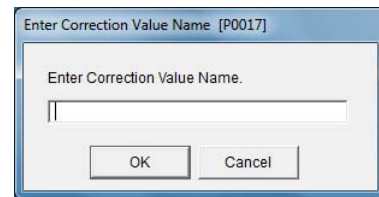
Verify correction accuracy.

If the verification results are "OK", write the created correction value file to the Printer PC.

Subsequent prints are corrected using the written correction value.

If the results are "NG", you need to create the correction value again. Perform operations from Print in the correction value creation phase.

History of Correction Values

Click **History of Correction Values** (0342) from Color Calibration (034) to display the screen.

Select the correction values created previously from the list, and write to the Printer PC.
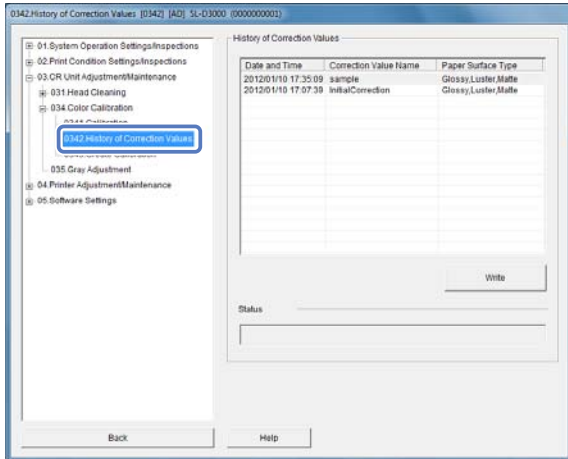
1 Select the correction values to write to the Printer PC from the History of Correction Values list.

> **Tip:**
> *All correction values created previously are displayed in the History of Correction Values list. If you select a correction value created previously, you can return the correction value to the previously selected value.*

2 Click **Write**.

The correction value is written to Printer PC.

Subsequent prints are corrected using the selected correction value.

Create Calibration

Click **Create Calibration** (0343) from Color Calibration (034) to display the screen.

Create the calibration file to be used in Calibration (0341).

> *Tip:*
> ❏ *You can create a standard value for each paper surface type.*
>
> ❏ *The initial calibration file provided contains standard values for a standard printer. When reducing the color differences between multiple printers, select the calibration file created by the main printer.*

> *Note:*
> ❏ *You need a color measurement device to perform calibration. The following models are supported.*
>
> > ❏ *The "i1Pro" from X-Rite (with or without a UV filter)*
> >
> > ❏ *The "i1iSis" from X-Rite*
>
> ❏ *When using a color measurement device, install the software for the measurement device in advance on the Client PC (the PC that will perform the calibration).*
>
> ❏ *Consult service personnel for more information on preparing and setting up the color measurement device.*
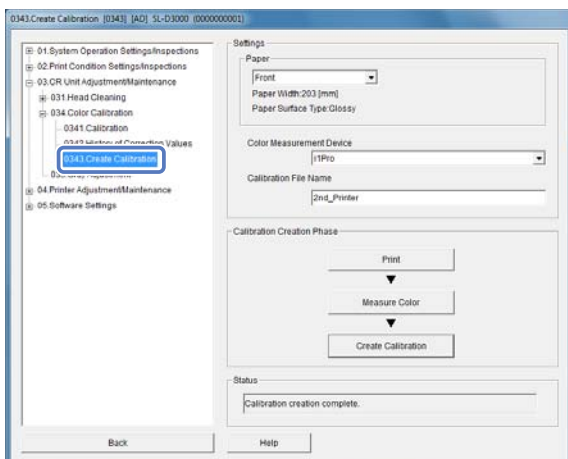
1 Select the roll paper feeder used for printing in Paper.

> *Tip:*
> *Only the Dual Roll Model supports front roll paper. For the Single Roll Model, see the information for rear roll paper.*

2 Select the color measurement device.

3 Enter the Calibration File Name.

Enter the file name of the calibration.

You can enter a file name that complies with Windows operating system restrictions.

If the file name already exists, a screen is displayed asking if you want to overwrite the file.

4 Click **Print** from Calibration Creation Phase.

A confirmation screen is displayed.
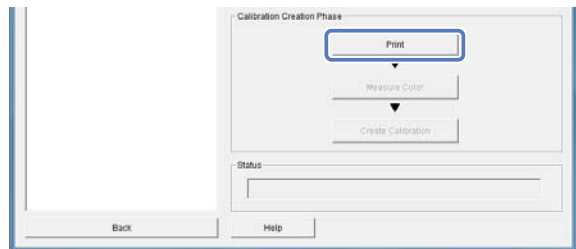
5 Click **Yes**.

Click **No** to cancel printing.

For a Glossy or Luster surface type, two charts are printed. These are standard and high image quality charts.
For a Matte surface type, one standard chart is printed.

Tip:
- ❏ *Nozzle Check is performed automatically before printing. If clogging is detected in the head, print again after cleaning the head and clearing the clogged nozzles.*
  ∠ ℑ *"Head Cleaning" on page 27*

- ❏ *The number of charts printed varies depending on the settings and the paper.*

6 The following screen is displayed after printing the first sheet. Follow the on-screen instructions, and then click **OK**.

The charts the second sheet and after are printed.

Note:
Do not allow the printed correction charts to overlap while drying. The color tone of the overlapped section may differ, leading to improper calibration.
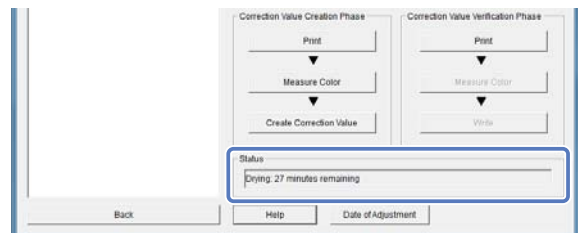
Tip:
If the confirmation message is set not to display in Completion Confirmation for Long Length Sheet Printing from Printer Operation Settings, this message is not displayed.
∠ ℑ *"Printer Operation Settings" on page 23*

7 Wait for 30 minutes until drying is complete.

Make sure the printed correction charts do not overlap during the drying process.

Check the drying time displayed on Status.

When the drying time reaches 0, Drying complete. is displayed, and the Measure Color button becomes available.

8 Check that the color measurement device you want to use is connected.

9 Click **Measure Color** from Calibration Creation Phase.
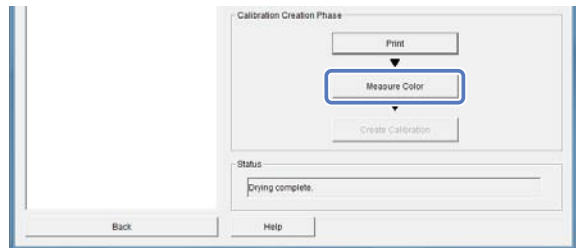
**10** Perform color measurement in the color measurement device in the same way as color measurement for the correction chart.

∠ ℑ "Correction chart color measurement (for the "i1Pro")" on page 40

∠ ℑ "Correction chart color measurement (for the "i1iSis")" on page 42

11 Click **Create Calibration** from Calibration Creation Phase.

The calibration file is created.

You can select the created calibration file in Calibration.
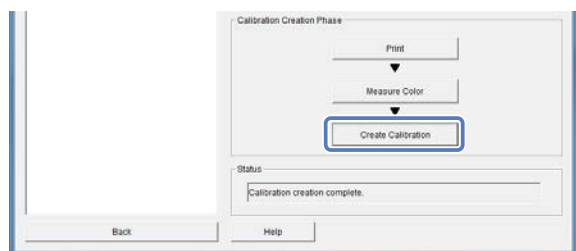
Problems with Color Calibration

Symptom	Error Messages	What to do
Cannot print a correction chart. Print is not enabled.	-	**Has paper with a paper width of less than 8 inches been set?** Set the correct paper type and width.
A color measurement error occurs.	" Operation failed." "Failed to calibrate. Color measurement finished. Do you want to continue? "	**Does the connected spectrometer match the selected spectrometer?** Select the correct spectrometer.
	When using [i1Pro]: "Failed to calibrate. Color measurement finished. Do you want to continue? "	**When using [i1Pro] and performing color measurement for a white calibration tile, is the spectrometer installed correctly on the base plate?** Install the spectrometer correctly on the base plate, and then perform color measurement for the white calibration tile again.
	When using [i1Pro]: "×" or "!" is displayed.	**Did the spectrometer perform a quick, rough scan while performing color measurement in [i1Pro]?** Make sure the spectrometer performs a slow and thorough scan when measuring color.
	When using [i1iSis]: "Invalid color chart or the color chart was not printed correctly." When using [i1Pro]: "×" or "!" is displayed.	**Has a correction chart with a different Color Chart ID been loaded?** Load the correction chart with the correct Color Chart ID.
		Is the correction chart loaded correctly? Load the correction chart correctly, and then perform color management again.
		Is the print quality of the correction chart too low, or is it soiled? Perform Head Cleaning, reprint the correction chart, and then perform color measuring again.
	"×" or "!" is displayed. " Operation failed."	**Is the PC connected to the spectrometer correctly?** Check the connection between the spectrometer and the PC, and then perform color measuring again.
	-	**Were the correction charts overlapping during the drying process?** The color tone for the overlapping sections may change while drying, and calibration may not be performed correctly. Print the correction charts again.
The maintenance utility closes during color measuring due to an error.	-	**Did the spectrometer perform a quick, rough scan while performing color measurement in [i1Pro]?** Restart the printer and the PC, and then perform color measuring again. Make sure the spectrometer performs a slow and thorough scan when measuring color.
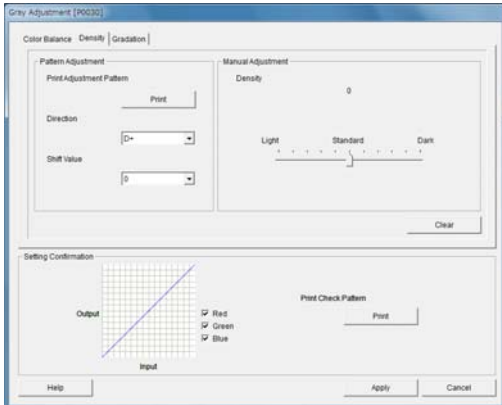
Symptom	Error Messages	What to do
The results of the Correction Value Verification Phase are NG.	-	**Did a color measurement error occur?** Perform Correction Value Creation Phase and Correction Value Verification Phase again while referring to the solutions in "A Color Measurement Error Occurred" from Troubleshooting.
	-	**Were the correction charts overlapping during the drying process?** The color tone for the overlapping sections may change while drying, and calibration may not be performed correctly. Print the correction charts again.
An error occurred while generating the correction value, writing the correction value, or writing the standard value.	"Operation failed." "Failed to write Correction Value File. Try again. "	**Are the PC and the printer connected to the spectrometer correctly?** Check the connection between the PC and the printer, and then click Create Correction Value again.
		Is there enough free space on the PC's hard disk? Make sure there is sufficient free space on the PC's hard disk, and then click Create Correction Value again.

Gray Adjustment

You can adjust each value for Color Balance, Density, and Gradation to correct the tone of the prints.
Adjustment values can be saved for each Standard or High Image Quality of the Image Quality Settings.
Print an adjustment pattern, and then select the optimal values from the adjustment pattern.

Tab	Explanation
Color Balance	Changes the strength for Cyan (C), Magenta (M), and Yellow (Y) to adjust the color balance.
Density	Adjusts the density (Dark/Light).
Gradation	Adjusts the overall gradation (the difference between light and shade) of the image.

Note:

❏ *You can perform **Gray Adjustment** for each Paper Surface Type.*

❏ *Click **Date of Adjustment** to display the time when it was last adjusted. You can check the changed date settings for each Paper Surface Type and the Image Quality Settings.*

❏ *Only the Dual Roll Model supports front roll paper. For the Single Roll Model, see the information for rear roll paper.*

❏ *After performing Color Calibration, you need to make settings for Gray Adjustment again.*

❏ *If you are using multiple printers and you want to match the color balance between the printers, print a check pattern for your main printer and an adjustment pattern for the printer that you want to match to the main printer. Adjust the second printer using the setting on the adjustment pattern that is closest to the main printer.*

Check pattern for main printer
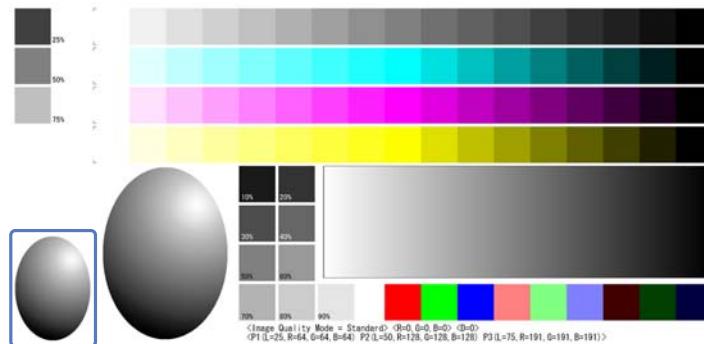
Adjustment pattern for printer to be matched to the main printer (Select the color tone closest to the main printer)
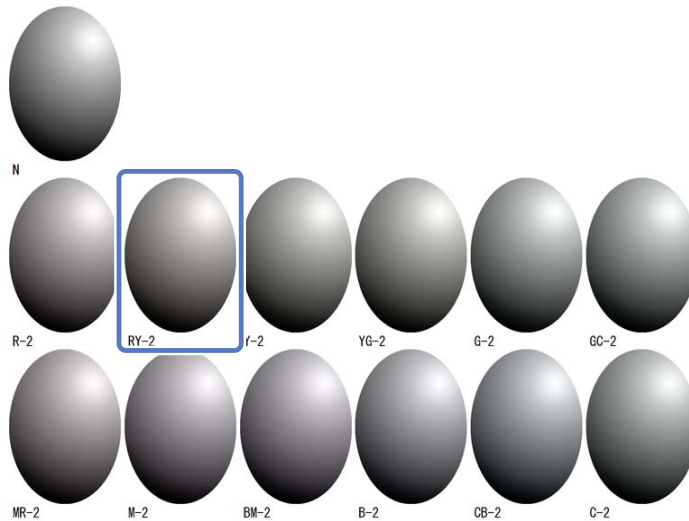
Click **Gray Adjustment** (035) from the CR Unit Adjustment/Maintenance (03) menu to display the settings.
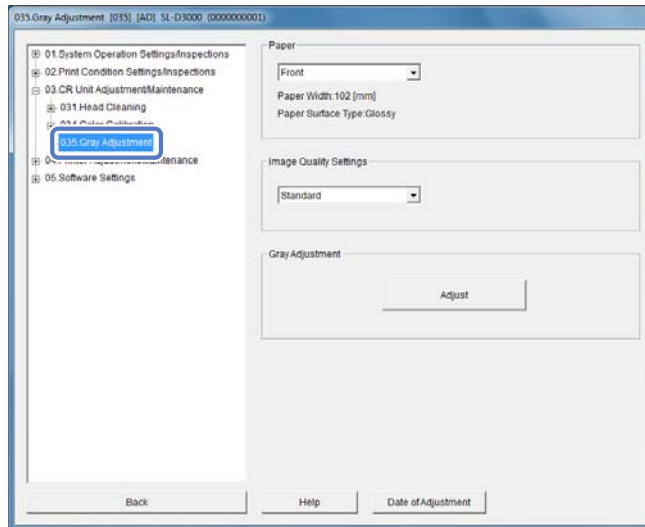
Color Balance

1 From Paper, select the roll paper feeder that will be used to print the adjustment pattern.
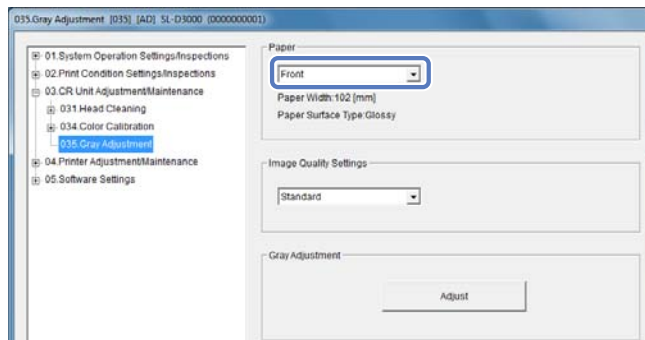
2 From Image Quality Settings, select the image quality adjustment method.

3 Click **Adjust**.

The settings screen is displayed.
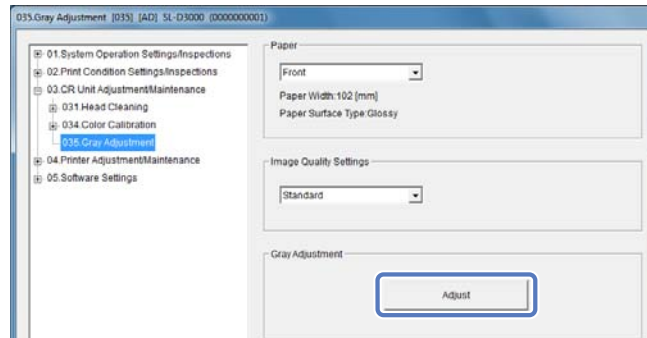
4 Click **Print** from Print Adjustment Pattern on the Color Balance tab.
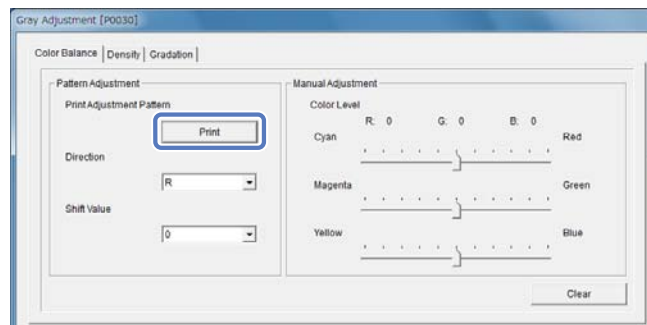
5 Select **Adjustment Pattern Shift Value**, and then click **Print**.

Select the larger value to print the adjustment pattern which indicates large differences between each adjustment value.
To make fine adjustments, select a lower value.
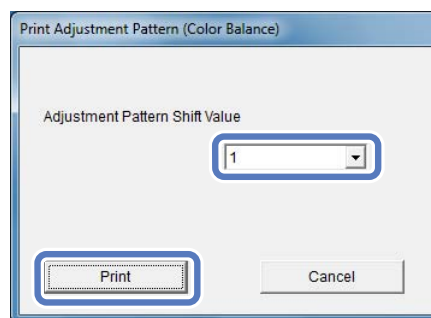
Print the adjustment pattern.

6 Select the best pattern from the adjustment pattern, and check the adjustment values.

The adjustment value is printed in letters and numbers at the bottom left of each pattern. (Example: RY-2)
The letter indicates the direction of the adjustment color. "N" means no correction.
The number shows the amount of changes.
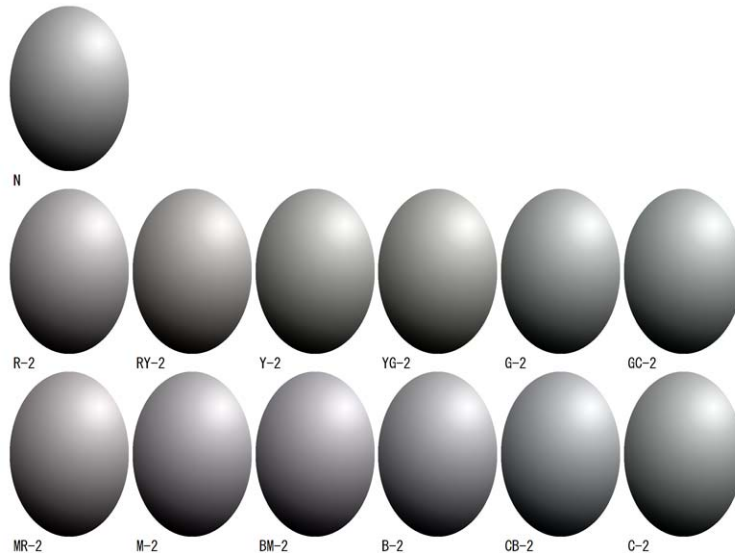
7 Select the **Direction** and **Shift Value**.

Specify the adjustment value selected from the adjustment pattern.

When a setting is changed, the settings are reflected in the slide bar on the right of the screen and the graph (tone curve) at the bottom of the screen.

> *Note:*
> ❑ *The tone curve shows the output strength for each input color (R: Red, G: Green, B: Blue). When in an uncorrected state (a straight line from top right to bottom left), the image darkens (colors become deeper) when moved down, and the image lightens (the colors become paler) when moved up.*
>
> ❑ *You can manually adjust the color by using **Manual Adjustment** on the right of the screen. If you make manual adjustments, the Pattern Adjustment value becomes unavailable.*
>
> ❑ *When you click **Clear**, the Color Balance adjustment values are returned to their default values. The Density and Gradation values are retained.*

8 Click **Print** from Print Check Pattern.

Prints the check pattern.
Check that the color balance is as intended.
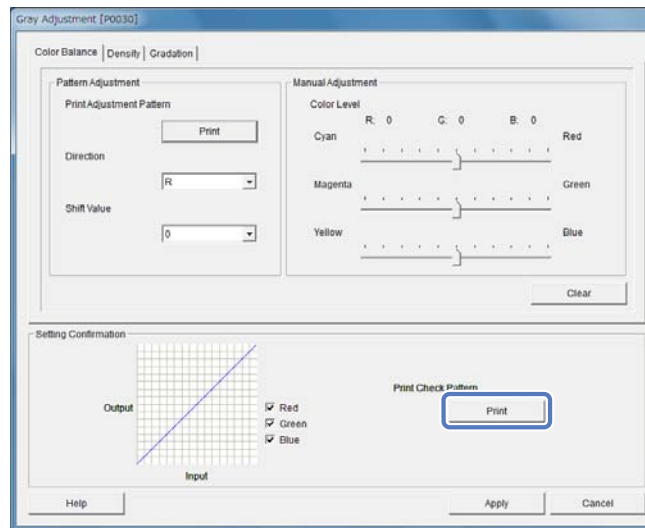
9 Click **Apply**.

The settings are applied and the screen is closed.

Density Correction

1 From Paper, select the roll paper feeder that will be used to print the adjustment pattern.
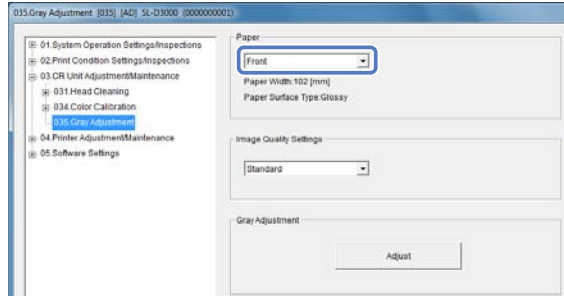
2 From Image Quality Settings, select the image quality adjustment method.
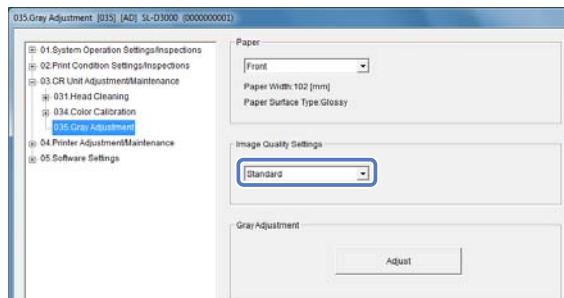
3 Click **Adjust**.

The settings screen is displayed.
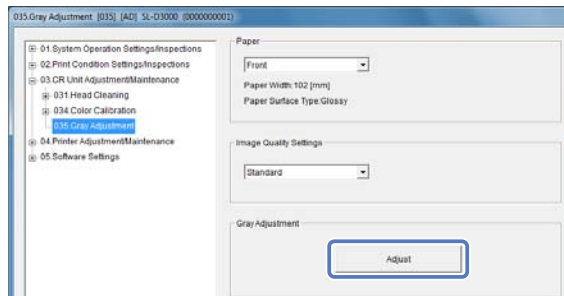
4 Click **Print** from Print Adjustment Pattern on the Density tab.

The adjustment pattern is printed.
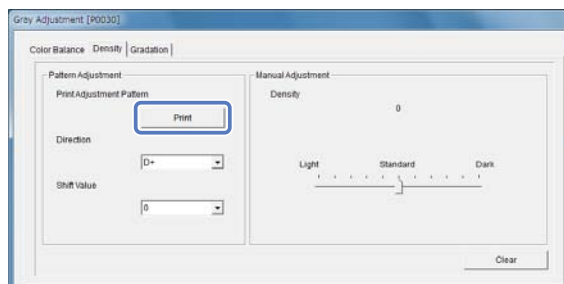
5 Select the best pattern from the adjustment pattern, and check the adjustment values.

The adjustment value is printed in letters and numbers at the bottom left of each pattern. (Example: D-2)
"N" means no correction. The number shows the amount changed.
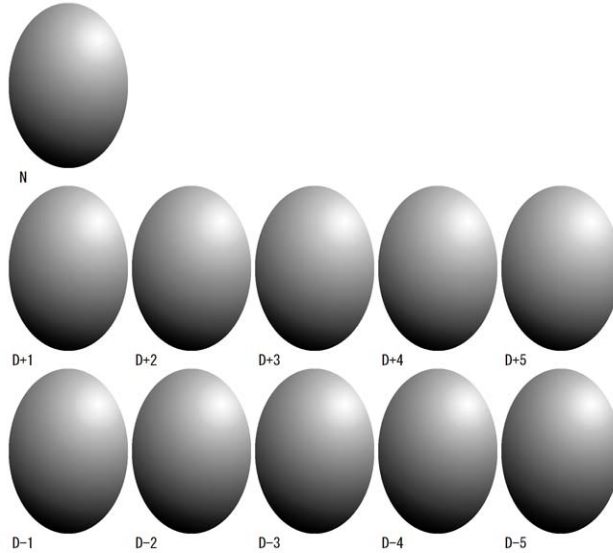
6 Select the **Direction** and **Shift Value**.

Specify the adjustment value selected from the adjustment pattern.
Select the light and shade (D+ and D-) using **Direction**, and set a numerical value using **Shift Value**.
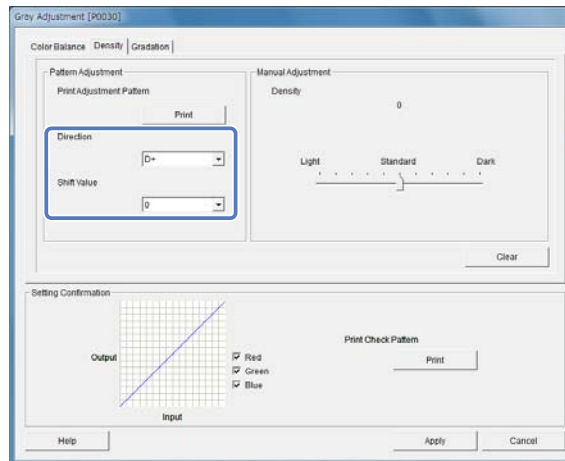
When a setting is changed, the settings are reflected in the slide bar on the right of the screen and the graph
(tone curve) at the bottom of the screen.

> *Note:*
> ❑ *The tone curve shows the output strength for each input color (R: Red, G: Green, B: Blue). When in an uncorrected state (a straight line from top right to bottom left), the image darkens (colors become deeper) when moved down, and the image lightens (the colors become paler) when moved up.*
>
> ❑ *You can manually adjust the density by using **Manual Adjustment** on the right of the screen. If you make manual adjustments, the Pattern Adjustment value becomes unavailable.*
>
> ❑ *When you click **Clear**, the Density adjustment values are returned to their default values. The Color Balance and Gradation values are retained.*

7 Click **Print** from Print Check Pattern.

Prints the check pattern.
Check that the color balance is as intended.
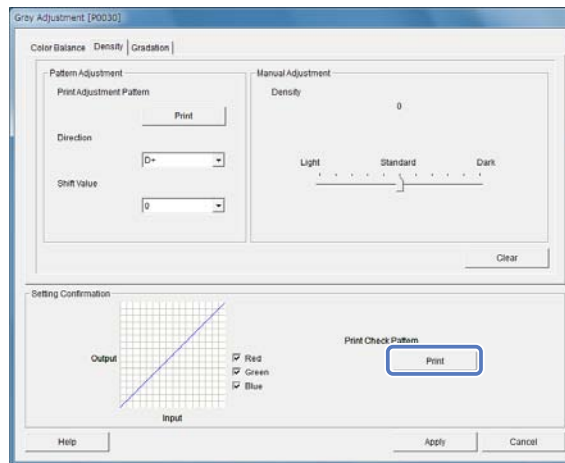
8 Click **Apply**.

The settings are applied and the screen is closed.

Gradation Correction

1 From **Paper**, select the roll paper feeder that will be used to print the adjustment pattern.
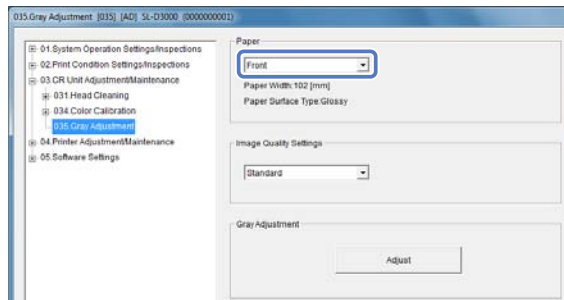
2 From Image Quality Settings, select the image quality adjustment method.
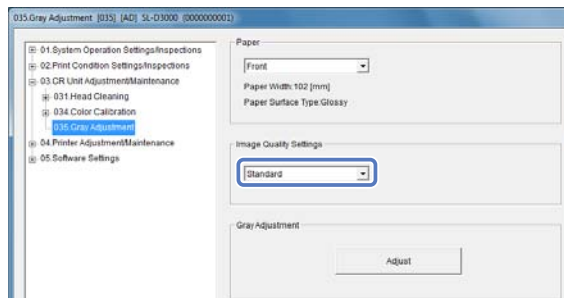
3 Click **Adjust**.

The settings screen is displayed.
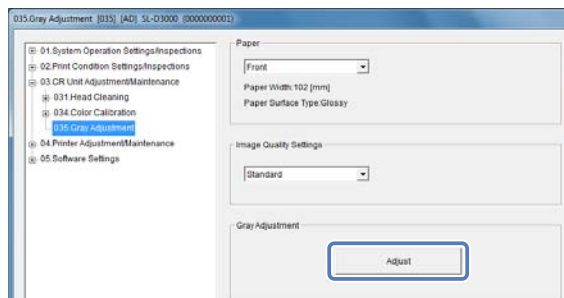
4 On the Gradation tab, specify the brightness points as necessary (P1: Shadow, P2: Half-tone, P3: Highlight).
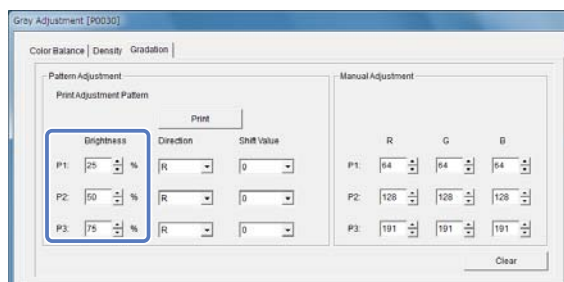
5 Click **Print** from Print Adjustment Pattern.

Displays the screen setting the amount of change in the printed adjustment pattern.
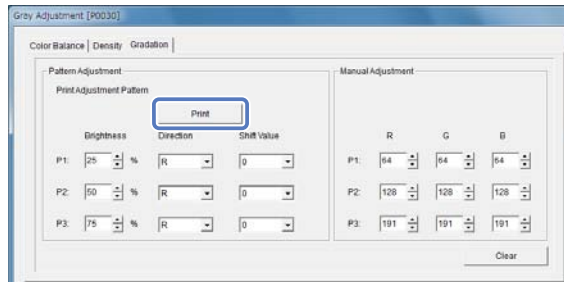
6 Select **Adjustment Pattern Shift Value**, and then click **Print**.

Select the larger value to print the adjustment pattern which indicates large differences between each adjustment value.
To make fine adjustments, select a lower value.

Select the amount of change for P1 (Shadow), P2 (Half-tone), and P3 (Highlight) according to the brightness point.
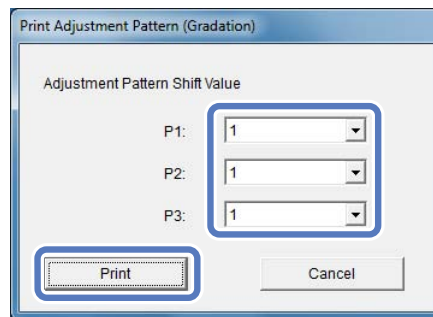
The adjustment pattern is printed.

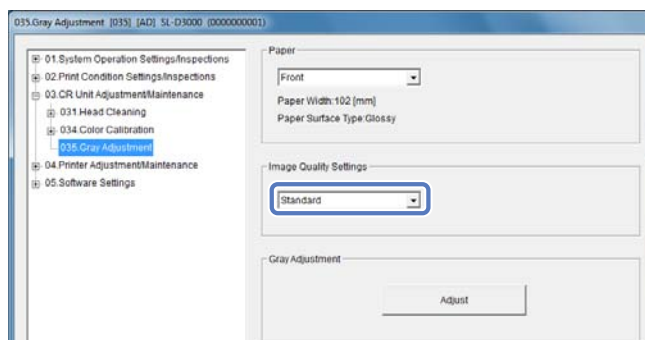**7** Select the best pattern from the adjustment pattern, and check the adjustment values.

The adjustment value is printed in letters and numbers at the bottom left of each pattern. (Example: R-2)
The letter indicates the direction of the adjustment color. "N" means no correction.
The number shows the amount changed.
Check P1 (Shadow), P2 (Half-tone), and P3 (Highlight) according to the brightness point.
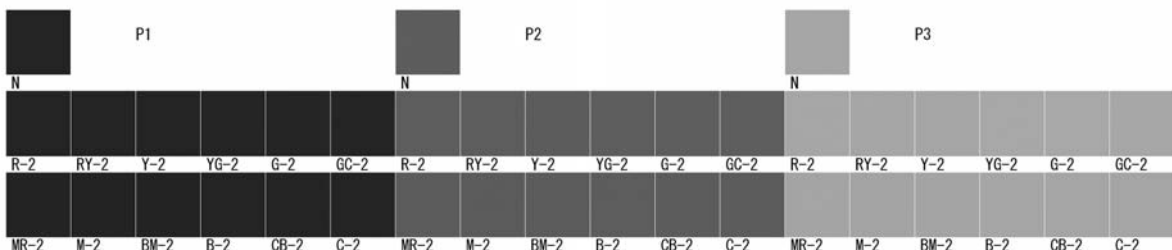
8 Select the **Direction** and **Shift Value**.

Specify the adjustment value selected from the adjustment pattern.
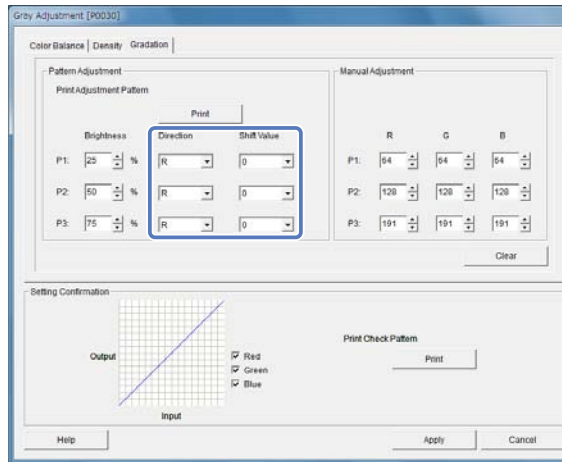
When a setting is changed, the settings are reflected in the values for Manual Adjustment on the right of the screen and the graph (tone curve) at the bottom of the screen.

> *Note:*
> ❏ *The tone curve shows the output strength for each input color (R: Red, G: Green, B: Blue). When in an uncorrected state (a straight line from top right to bottom left), the image darkens (colors become deeper) when moved down, and the image lightens (the colors become paler) when moved up.*
>
> ❏ *You can manually adjust the gradation by using **Manual Adjustment** on the right of the screen. If you make manual adjustments, the Pattern Adjustment value becomes unavailable.*
>
> ❏ *When you click **Clear**, the Gradation adjustment values are returned to their default values. The Color Balance and Density values are retained.*

9 Click **Print** from Print Check Pattern.

Prints the check pattern.
Check that the color balance is as intended.
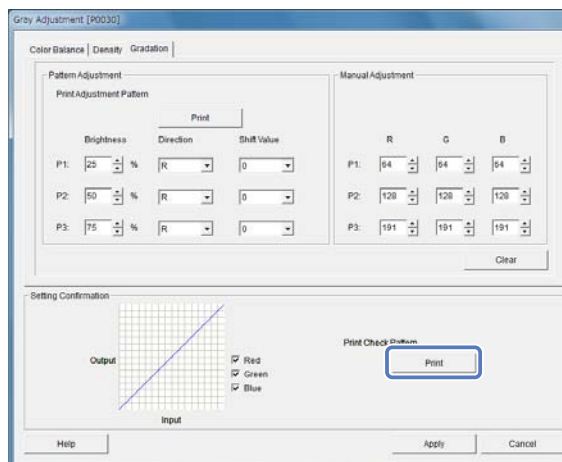
10 Click **Apply**.

The settings are applied and the screen is closed.

Problems with Gray Adjustment

Symptom	Error Messages	What to do
The print quality for the adjustment pattern is too low.	-	**Is the print head clogged?** Print an adjustment pattern again after performing head cleaning.
An error occurred while applying the parameters.	"Try again after closing the Settings/Maintenance screen." "Operation failed."	**Are the PC and the printer connected to the spectrometer correctly?** Check the connection between the PC and the printer, and then click Apply again.
		Is there enough free space on the PC's hard disk? Make sure there is sufficient free space on the PC's hard disk, and then click Apply again.
Errors in the adjustments have been applied. I want to make adjustments again.	-	**Initialize and then readjust.** Press Clear for the Color Balance, Density Adjustment, and Gradation Correction to initialize the settings, and then make adjustments again.
The adjustment values have been initialized.	-	**Have adjustment values been initialized after performing color calibration?** Perform gray adjustment again.

Print Head Maintenance

To prevent print head quality from declining, or to restore print quality, clean the print head unit and the wipers for the print head.

Perform cleaning in the following situations.

❏ When streaks or smears caused by drops of ink appear on the surface of the prints

❏ When you want to avoid streaks or smears caused by drops of ink appearing in the prints

To perform this type of cleaning, you need the optional Print Head Maintenance Kit (C12C890991).
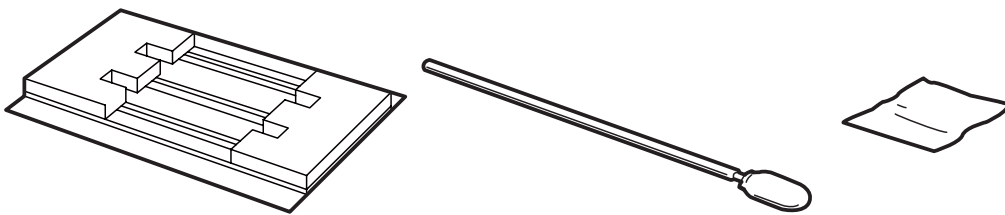
Click Head Maintenance (036) from the CR Unit Adjustment/Maintenance (03) menu.

For more information on performing head maintenance, see the User's Guide supplied with the Print Head Maintenance Kit.
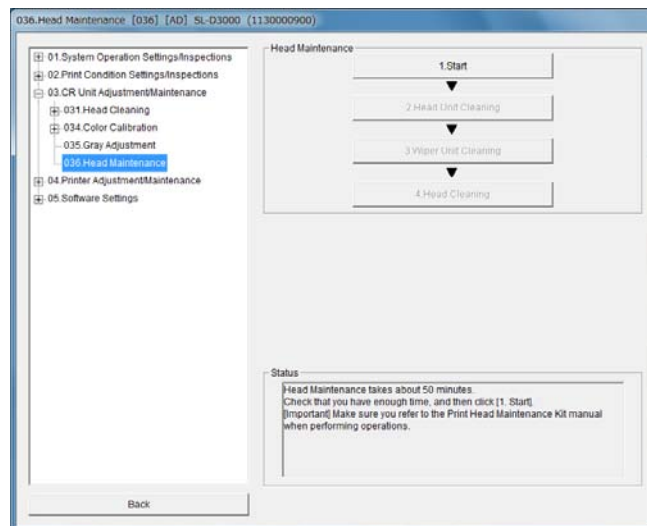
Printer Adjustment/Maintenance

In Printer Adjustment/Maintenance (04) on the Settings/Maintenance screen, you can check Operation History (044) and Parts Replacement History (045).

Operation History

Click **Operation History** (044) from Printer Adjustment/Maintenance (04) to display the screen.

You can check errors that have occurred, the number of prints, and the number of head cleaning operations in the printer.
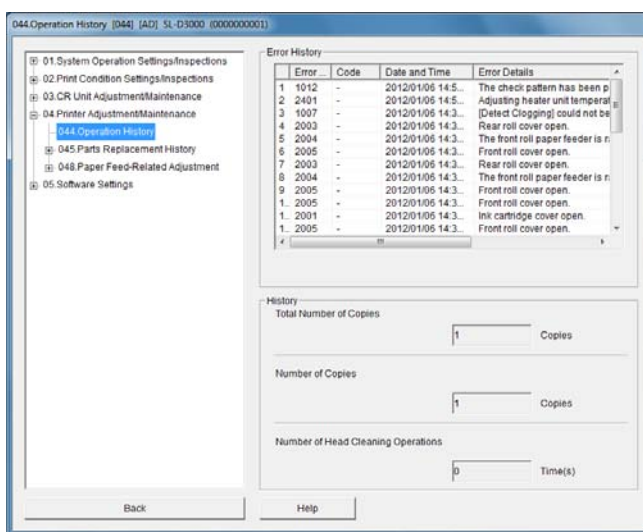
Item		Explanation
Error History		Displays up to 100 errors that have occurred in the printer, and information.
		Error ID indicates the error number.
		Error History may be cleared by service personnel as it is used for management information when performing maintenance.
History	Total Number of Copies	Displays the total number of copies.
	Number of Copies	Displays the number of copies.
		This number may be cleared by service personnel as it is used for management information when performing maintenance.
	Number of Head Cleaning Operations	Displays the number of head cleaning operations.
		This number may be cleared by service personnel as it is used for management information when performing maintenance.
Back		Click to close the Settings/Maintenance screen.
Help		Click to display the Help.

Parts Replacement History

In Parts Replacement History (045), you can confirm the replacement day for parts that need to be replaced periodically in Register Replacement Date for Periodically Replaced Parts (0451), and check the amount of usage for each part in Clear Counter 1 (0452).

Register Replacement Date for Periodically Replaced Parts

From the Printer Adjustment/Maintenance (04) menu, click **Register Replacement Date for Periodically Replaced Parts** (0451) from Parts Replacement History (045) to display the screen.

You can check the date that parts that need periodic replacement were replaced.

Service personnel can set the date.
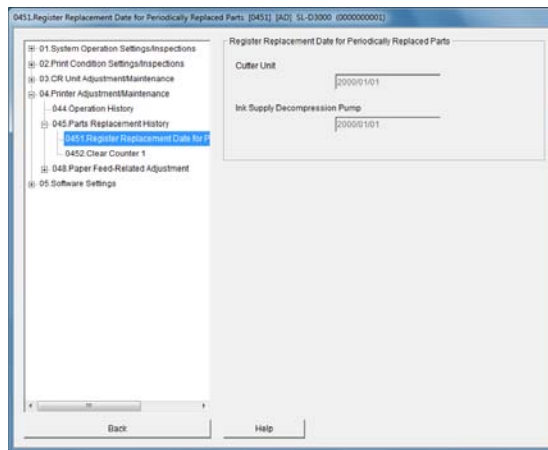
Clear Counter 1

From the Printer Adjustment/Maintenance (04) menu, click **Clear Counter 1** (0452) from Parts Replacement History (045) to display the screen.

You can check the counters for each part.

This number may be cleared by service personnel as it is used for management information when performing maintenance.
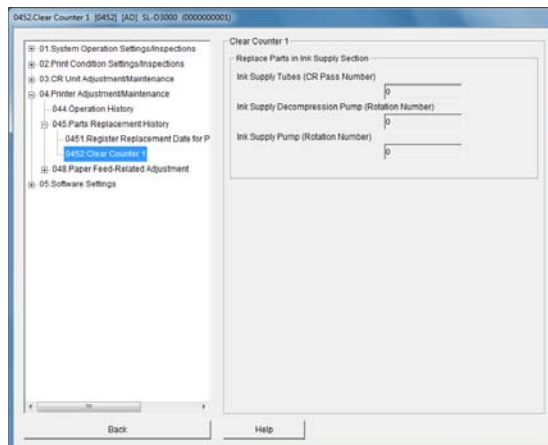
Paper Feed-Related Adjustment

Paper Feed Amount Durability Correction

From the Printer Adjustment/Maintenance (04) menu, click **Paper Feed Amount Durability Correction** (0483) from Paper Feed-Related Adjustment (048) to display the screen.

The paper feed amount may change due to environmental changes or time-dependent changes. If the print quality deteriorates, correcting the paper feed amount may improve the print quality.
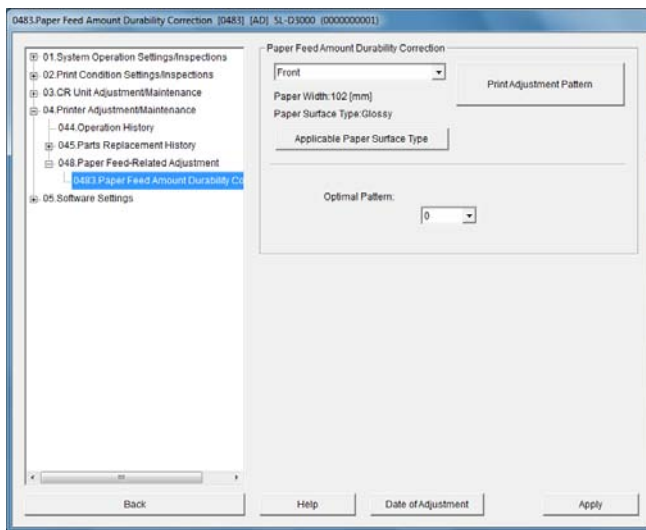
> *Tip:*
> ❑ *Correct for each Paper Width and Paper Surface Type.*
>
> ❑ *You do not need to adjust paper with a width of 8 inches and A4 size paper separately. These are considered to be the same width.*
>
> ❑ *Click **Applicable Paper Surface Type** to check if the value for the paper surface type used for adjusting can be used for other paper surface types.*
>
> ❑ *Click **Date of Adjustment** to display the time when it was last adjusted. You can check the changed date settings for each Paper Surface Type.*

1 In Paper, select the roll paper feeder you want to use for printing.
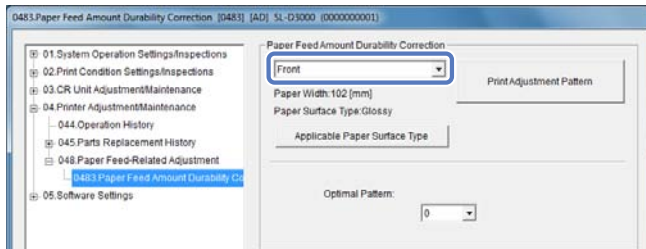
2 Click **Print Adjustment Pattern**.

The adjustment pattern is printed.
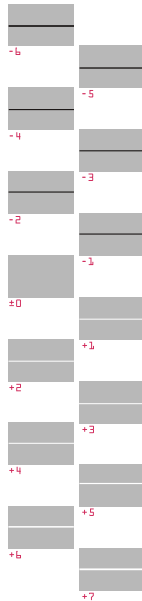
3 Select the optimal number from the adjustment patterns, and then click **Apply**.
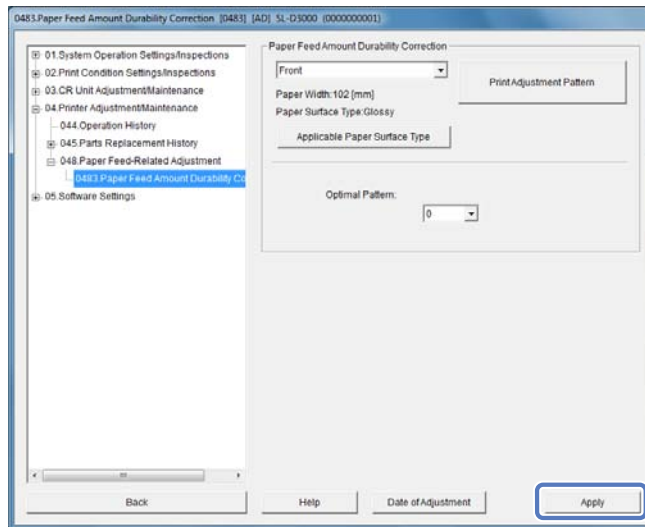
Tip:
❑ *See the following and select the print pattern that has no black or white lines.*

NG   OK   NG
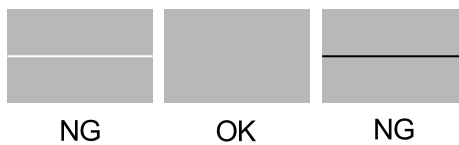
❑ *If there are no "good" patterns in the printed adjustment patterns, enter the number that is closest to "good", and then print the adjustment patterns again.*

Software Settings

In Software Settings (05) on the Settings/Maintenance screen, you can set the date, language, and units in System Language Settings (051).

System Language Settings

Click **System Language Settings** (051) from Software Settings (05) to display the screen. Set the date, language, and units that are displayed on the screen.

After changing settings, click **Apply** to restart SL-D3000 Maintenance Utility to apply the language settings.
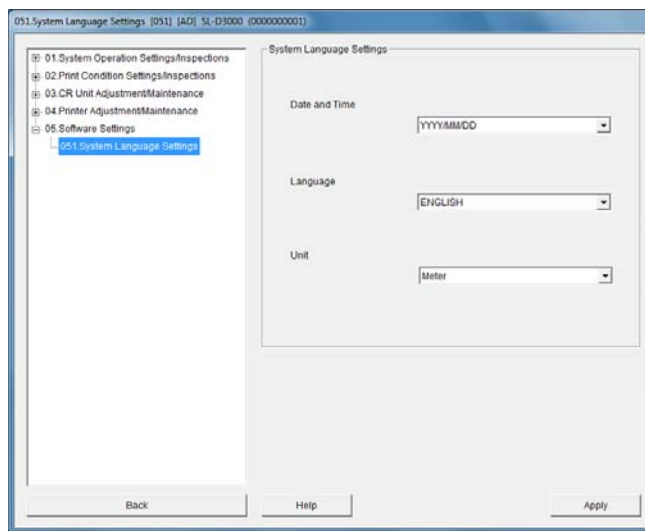
Item	Explanation
Date and Time	You can use one of the following settings to set the way the date is displayed. Settings: YYYY/MM/DD, MM/DD/YYYY, DD/MM/YYYY (Y: year, M: month, D: day)
Language	Select which language you want to use from the list of languages.
Unit	You can use one of the following settings to set the way units are displayed. Settings: Meter (m, mm), Feet (ft, inch)
Back	Click to close the Settings/Maintenance screen.
Help	Click to display the Help.
Apply	Click to apply any changed settings. A message is displayed instructing you to restart the utility.

Help

Click **Help** on any screen to display the Help.
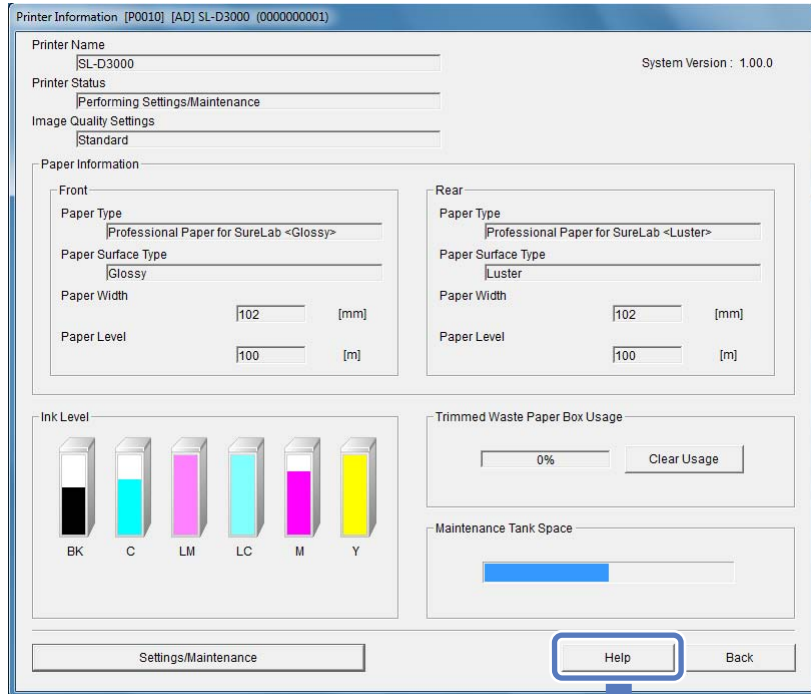
Help screen example
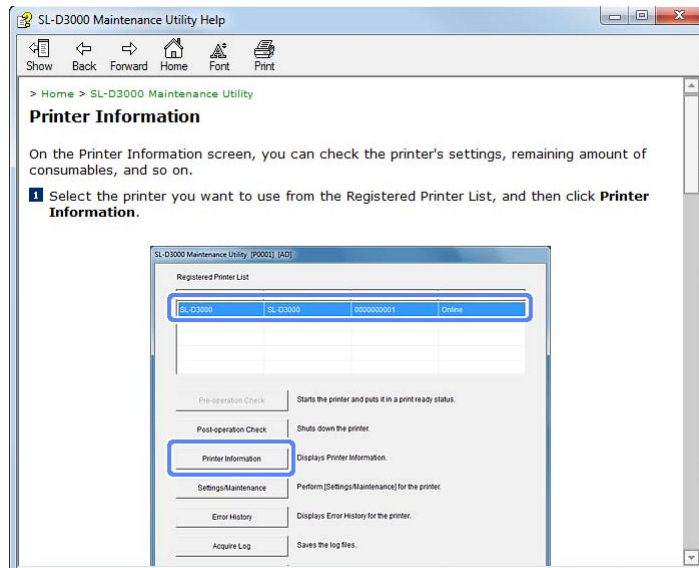
Error History

On the Error History screen, you can check errors that have occurred in the printer.

1 Click **Error History**.
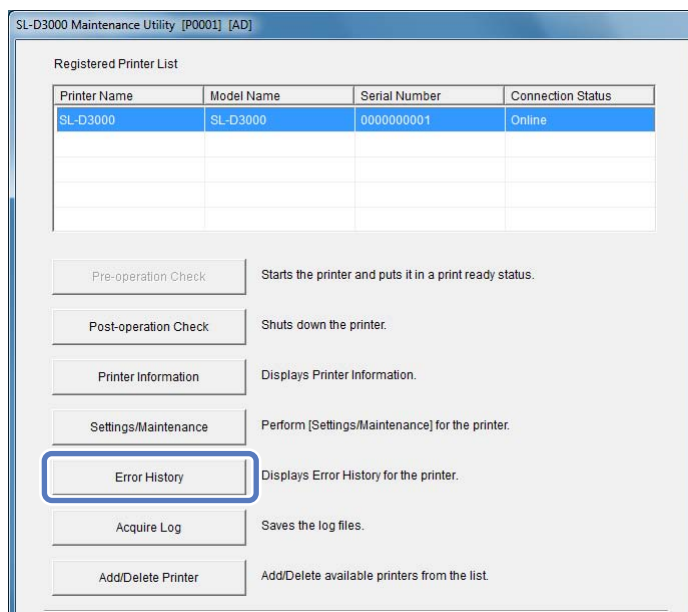
2 Check the **Error History** screen.
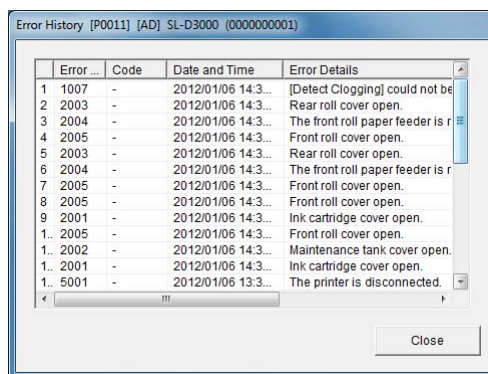
Up to 100 errors that have occurred in the printer, and information are displayed.
The error ID indicates the error number.
This number may be cleared by service personnel as it is used for management information when performing maintenance.

Acquire Log

You can save log files for up to 14 days inclusive. These files contain operating information for the printer and the system.

1 Click **Acquire Log**.

The Save As dialog box is displayed.
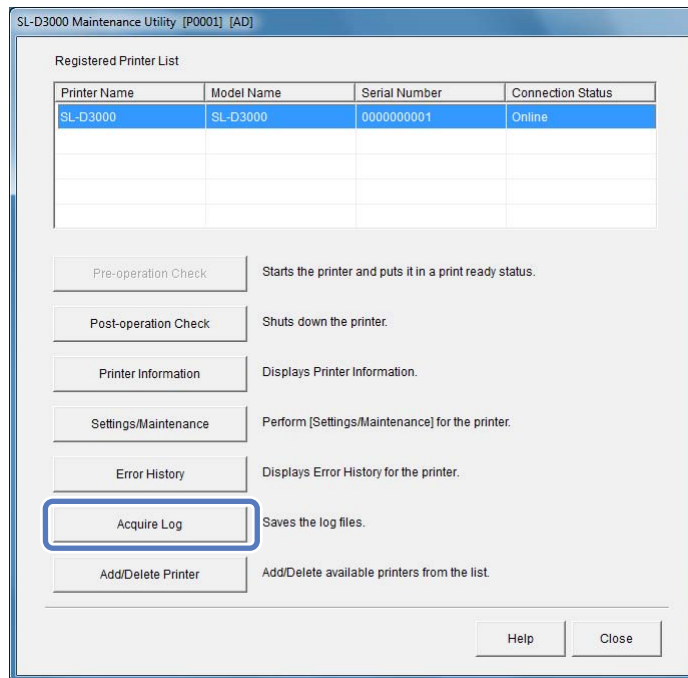
2 Check the file name, and then click **Save**.

Change the file name if necessary.

Note:
It may take some time to save the file. Do not operate the printer or system until a message is displayed informing you that saving is complete.

Tip:
❏ *The file extension is ".zip". The default name is "SLD3000_xxx_LOG.zip" (where xxx is the printer's serial number).*

❏ *You cannot acquire logs while the printer is operating. If logs cannot be acquired, try again when the printer has stopped operating.*

❏ *This function is unavailable in the following situations.*

  ❏ When the cable to the printer is disconnected

  ❏ When the printer's Power switch is off

Add/Delete Printer

1 Click **Add/Delete Printer**.

The Registered Printer List and Target Printer List screens are displayed.
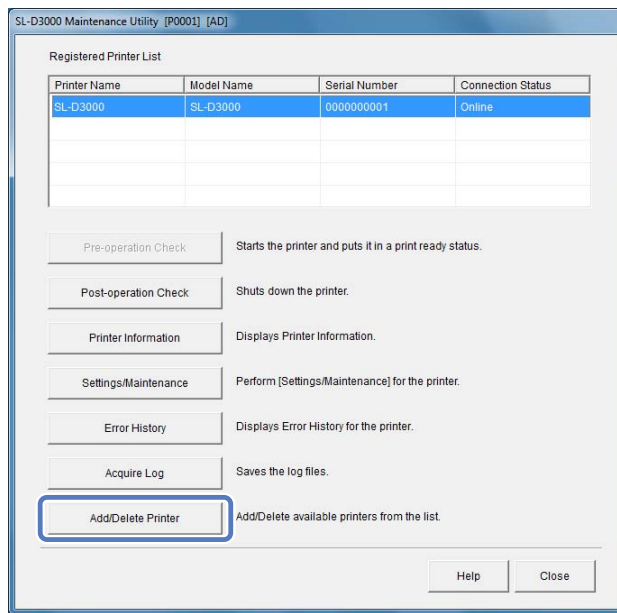
2 Add or delete printers.

When adding a printer, select the printer from Target Printer List, and then click ▲ .
When deleting a printer, select the printer from Registered Printer List, and then click ▼ .
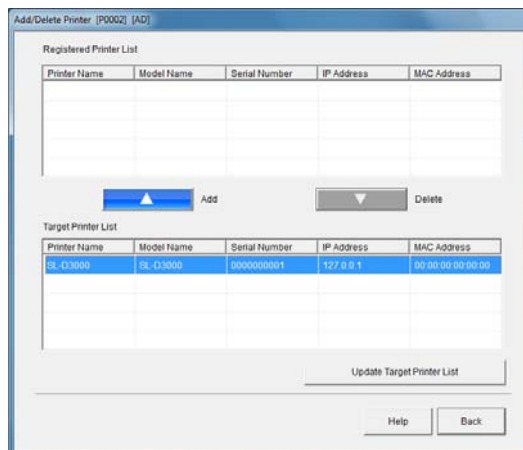
Tip:
*In Target Printer List, printers that are available for connection are automatically detected. If the target printer is not displayed, check the printer's connection status, and then click **Update Target Printer List** to detect the printer.*

*If a printer that was detected during the previous update is not detected when you click **Update Target Printer List**, the printer may have been deleted from the printer list.*

When a Message is Displayed

About Error Messages

When an error occurs in the printer, an error message is displayed.

The error code, the contents of the error, and the solutions are displayed on the screen.
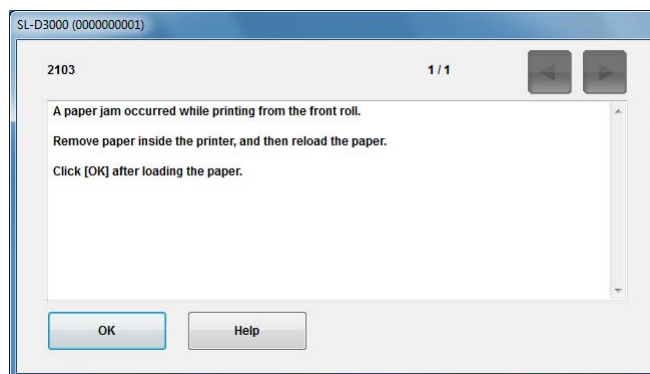
Tip:
See the "SL-D3000 Operation Guide" for more information on error messages and their solutions.

U *"SL-D3000 Operation Guide" - "Errors and Solutions"*

Appendix

Ejected Paper Path and Supported Paper Sizes

Print Size		Ejected Paper Path			
Size Name	Width x Length	Sorter	Top tray	Side tray	Tray
3R	5 x 3.5 inches (127 x 89 mm)	Yes	No	No	Yes
4 x 6	4 x 6 inches (102 x 152 mm)	Yes	No	No	Yes
4R	6 x 4 inches (152 x 102 mm)	Yes	No	No	Yes
5R	5 x 7 inches (127 x 178 mm)	Yes	No	No	Yes
8R	8 x 10 inches (203 x 254 mm)	Yes	No	No	Yes
10 X 8	10 x 8 inches (254 x 203 mm)	No	No	Yes	Yes
8 x 12	8 x 12 inches (203 x 305 mm)	Yes	No	No	Yes
12 x 8	12 x 8 inches (305 x 203 mm)	No	No	Yes	Yes
10 R	10 x 12 inches (254 x 305 mm)	No	No	Yes	Yes
12 x 10	12 x 10 inches (305 x 254 mm)	No	No	Yes	Yes
12 x 18	12 x 18 inches (305 x 457 mm)	No	Yes	No	Yes
Custom (102 x L)	4 x 3.5 to 12 inches (102 x 89 to 305 mm)	Yes	No	No	Yes
	4 x 12 to 48 inches (102 x 306 to 1219 mm)	No	Yes	No	Yes
Custom (127 x L)	5 x 3.5 to 12 inches (127 x 89 to 305 mm)	Yes	No	No	Yes
	5 x 12 to 48 inches (127 x 306 to 1219 mm)	No	Yes	No	Yes
Custom (152 x L)	6 x 3.5 to 12 inches (152 x 89 to 305 mm)	Yes	No	No	Yes
	6 x 12 to 48 inches (152 x 306 to 1219 mm)	No	Yes	No	Yes

Print Size		Ejected Paper Path			
Size Name	Width x Length	Sorter	Top tray	Side tray	Tray
Custom (203 x L)	8 x 3.5 to 12 inches (203 x 89 to 305 mm)	Yes	No	No	Yes
	8 x 12 to 48 inches (203 x 306 to 1219 mm)	No	Yes	No	Yes
Custom (210 x L)	8.3 x 3.5 to 12 inches (210 x 89 to 305 mm)	Yes	No	No	Yes
	8.3 x 12 to 48 inches (210 x 306 to 1219 mm)	No	Yes	No	Yes
Custom (254 x L)	10 x 3.5 to 12 inches (254 x 89 to 305mm)	No	No	Yes	Yes
	10 x 12 to 48 inches (254 x 306 to 1219 mm)	No	Yes	No	Yes
Custom (305 x L)	12 x 3.5 to 12 inches (305 x 89 to 305 mm)	No	No	Yes	Yes
	12 x 12 to 48 inches (305 x 306 to 1219 mm)	No	Yes	No	Yes

Paper Feed Path Diagram

This diagram shows the paper feed path inside the printer.
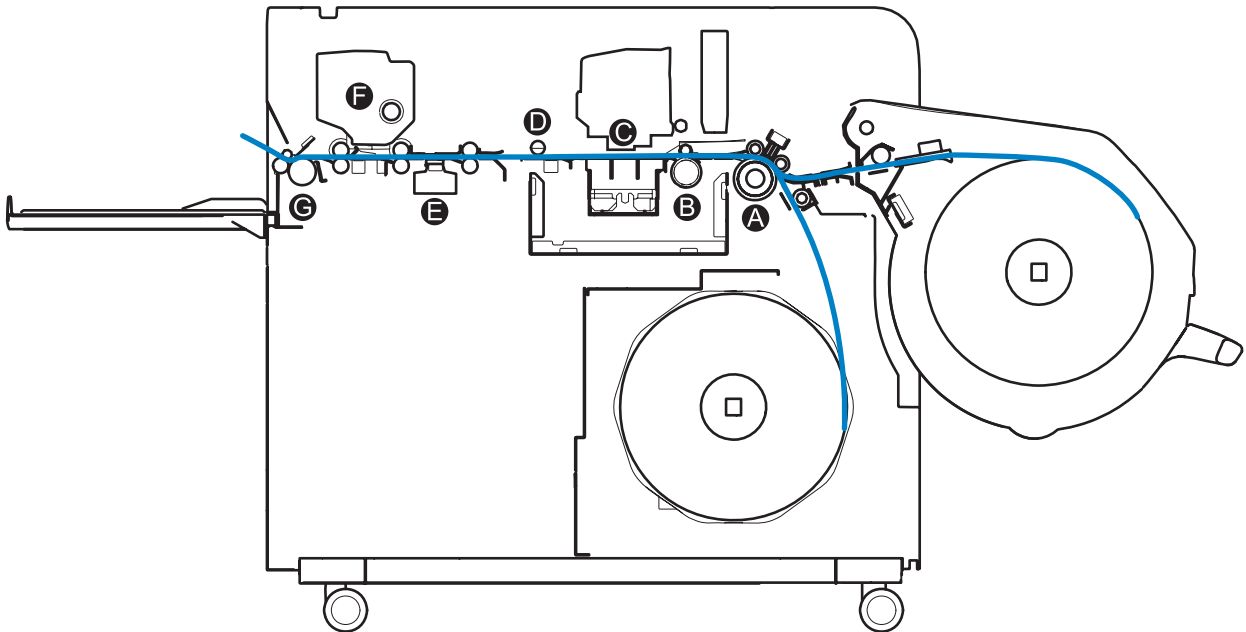
Ⓐ : Middle roller / Ⓑ : Large paper feed roller / Ⓒ : Print head / Ⓓ : Cutter / Ⓔ : Back printing unit / Ⓕ : Heater unit / Ⓖ : Decurler

Appendix

Tip:
Only the Dual Roll Model supports front roll paper. For the Single Roll Model, information is not displayed under the front paper item. See the information for rear roll paper.

Extending the Client PC

When a Printer PC is connected to this printer and is being used, you can extend the Client PC and share the printer.

*   This system guarantees simultaneous connections for two Client PCs. More than two simultaneous connections cannot be guaranteed.
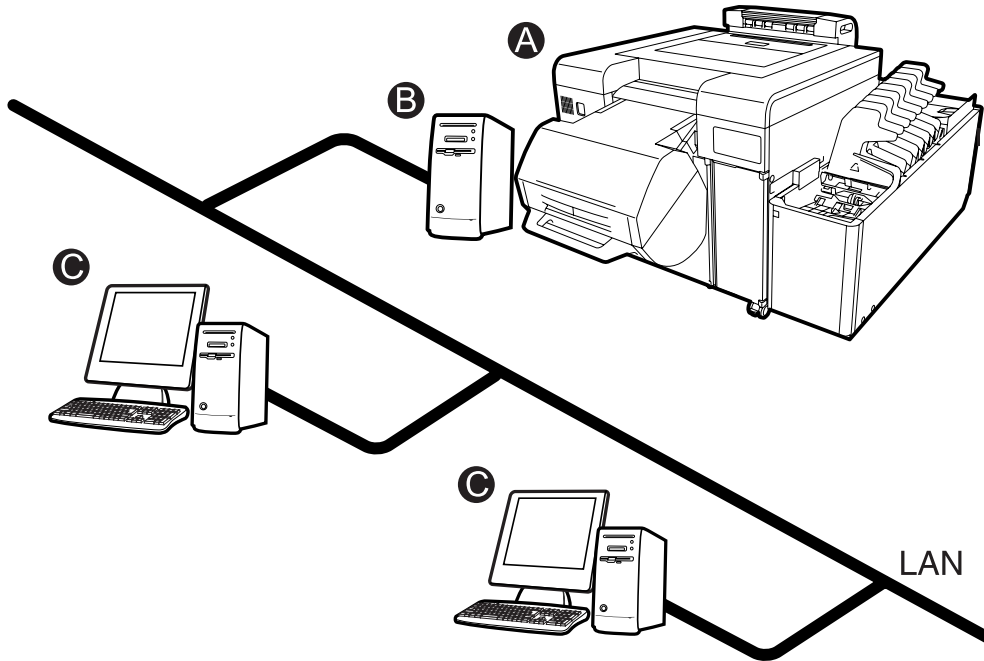
Ⓐ : Printer / Ⓑ : Printer PC / Ⓒ : Client PC

The following hardware and system requirements are necessary for the Client PC.

Operating System	Windows XP Professional (SP3) Windows 7 Professional (32 bit/64 bit)
CPU	Must satisfy the requirements for the operating system being used and the application.
Main Memory	2 GB or more
Free Hard Disk Space	200 MB or more
Interface	Ethernet 1000 Base-T/100 Base-TX

Note:
When extending the Client PC, make sure you update the system application for the Client PC that is currently connected and the Printer PC to the latest versions. If the system application versions for the extended Client PC and other PCs differ, the printer cannot be used from the extended Client PC.

U *"Changing the System Application Version" on page 81*

Preparing to extend the Client PC

1 Connect the Client PC to the same network environment as the printer, and make network settings.

Check with your network system administrator for more information on making network settings.

2 Click **Start** - **Control Panel** - **Date and Time**.

For Windows 7: Click **Start** - **Control Panel** - **Clock**, **Language**, and **Region** - **Date and Time**.
For Windows XP: Click **Start** - **Control Panel** - **Date and Time**, and then click the **Time Zone** tab.

3 Click **Change time zone...**, select the same time zone as the current Client PC, and then click **OK**.

Close the Control Panel, and then go to "Installing the system application".
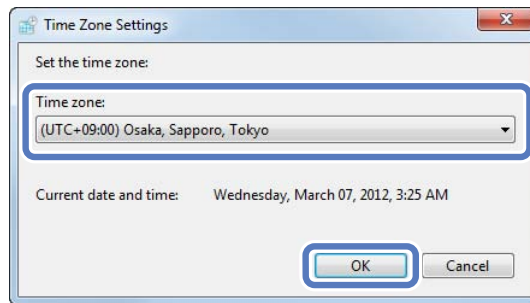
Installing the system application

1 Start the Client PC.

> *Note:*
> ❏ *Do not turn off the Client PC while installing the application.*
>
> ❏ *Log on to the Client PC as a user with administrator authority.*
>
> ❏ *In Windows 7, if a password entry screen or confirmation message is displayed, enter the password to continue.*

2 Close all running applications on the Client PC.

3 Insert the system application installation CD-ROM into the Client PC, and then double-click "Install.exe" from the SystemApplication folder.
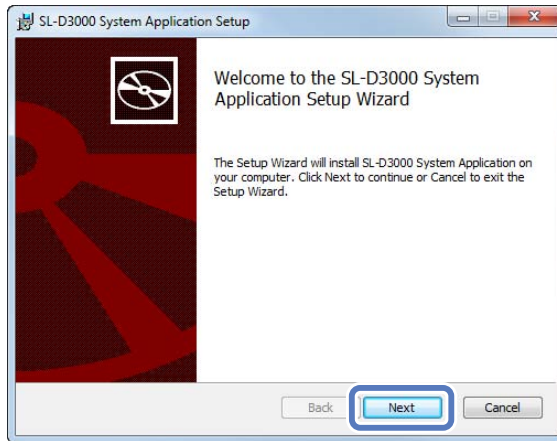
4 Click **Next**.

5 Select **Client PC** from Configure with Printer PC, and then click **Next**.
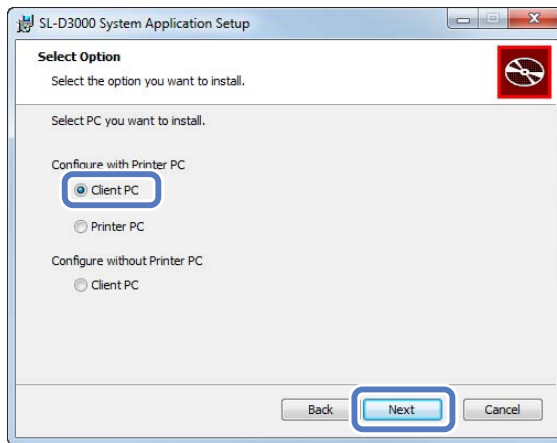
> *Tip:*
> *If anything except for Client PC is accidentally selected, remove the system application, and then reinstall.*

6 Click **Next** to display the hard drive selection screen. Select the hard drive you want to use, and then click **Next**.

Various adjustment values and so on are saved to this hard drive.
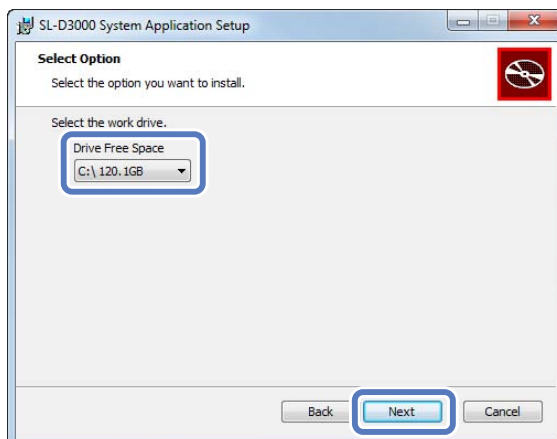
7 Follow the on-screen instructions.

8 The following screen is displayed when installation is complete. Click **Yes** to restart the system.
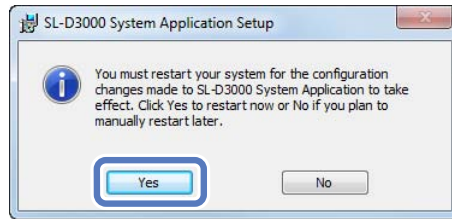
Initial settings for the Maintenance Utility

1 Start the printer using the current Client PC (the Client PC before extending).

U SL-D3000 Operation Guide - "Starting the Printer"

2 Start the SL-D3000 Maintenance Utility on the Client PC that you have extended.

Click **Start** - **All Programs** - **EPSON SL-D3000 System Application** - **Maintenance Utility**.

3 Change the user level to "Administrator's mode".

U "Changing User Levels" on page 13

4 Register the printer.

U "Add/Delete Printer" on page 72

Tip:
Install the printer driver if necessary.
U *SL-D3000 Printer Driver Operation Guide*

This completes the settings for extending a Client PC.

Changing the System Application Version

If a different version of the System Application CD has been provided, you can upgrade or downgrade the system application version that is already installed on the Client PC and the Printer PC to suit your needs.

Note:

❑ *Upgrading or downgrading retains printer and system information. However, downgrading returns the printer's operation history to the status just before the previous system application upgrade.*

❑ *If there are multiple Client PCs, upgrade or downgrade the system application for all Client PCs before performing the **Pre-Operation Check**.*

Upgrading or Downgrading

1) Prepare the System Application CD for upgrading or downgrading.

2) Restart your computer.

3) Start **SL-D3000 Maintenance Utility**.

4) Select the printer you want to use, and then start the **Pre-operation Check**.

The following steps are performed automatically when the Pre-operation Check starts.

5) When the Printer PC is connected to the Client PC, the Printer PC's system application is upgraded or downgraded.

6) The printer's firmware is upgraded or downgraded.

Tip:
*When multiple printers are registered to the Client PC, the Client PC's system application is upgraded or downgraded first. When you start the **Pre-operation Check** the first time after upgrading or downgrading the Client PC, the Printer PC's system application and the firmware in the printer are upgraded or downgraded.*

Checking the System Application Version

You can check the current version of the system application in Printer Information from the SL-D3000 Maintenance Utility. Check the version information before and after upgrading or downgrading the system application.
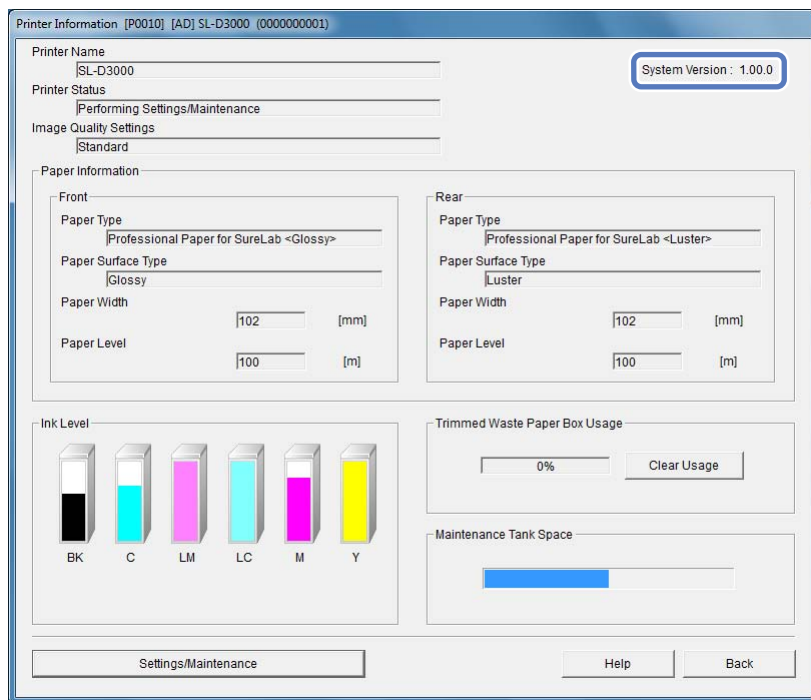
Changing the System Application Version

1 Start the Client PC.

> *Note:*
> ❏ *Note the following while upgrading or downgrading.*
>
> > ❏ Do not disconnect the USB cable connecting the printer and the Client PC or the Printer PC.
> >
> > ❏ Do not turn off the Client PC, the Printer PC (if connected), or the printer.
> >
> > ❏ Do not disconnect the LAN cable connecting the Client PC and the Printer PC (if connected).
>
> ❏ *Log in to the Client PC as a user with administrator privileges.*
>
> ❏ *If you are prompted to enter an administrator password or confirmation on Windows 7, enter the password and continue with the operation.*
>
> ❏ *If there are multiple Client PCs, perform a **Pre-operation check** after changing the version for all Client PCs.*

2 Turn off all of the printers that are connected to the Client PC or the Printer PC. If any printer is turned on, run the **Post-operation Check**.

3 Close all application software on the Client PC.

4 Load the System Application CD into the Client PC, and then click **Install.exe** in the SystemApplication folder.

5 Follow the on-screen instructions to upgrade or downgrade the system application.
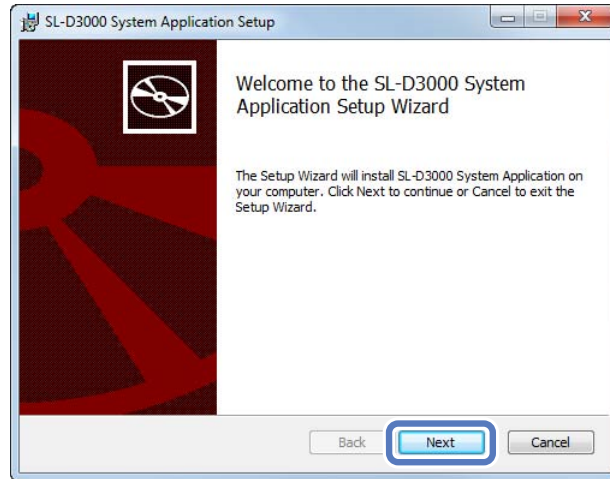
Upgrade

Downgrade
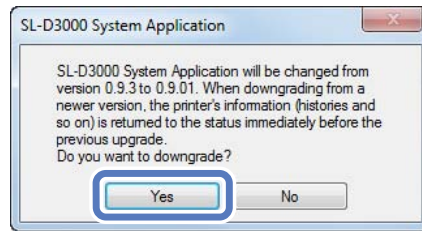
6 When the upgrade or downgrade is complete, the following screen is displayed on the Client PC. Click **Yes** to restart the Client PC.
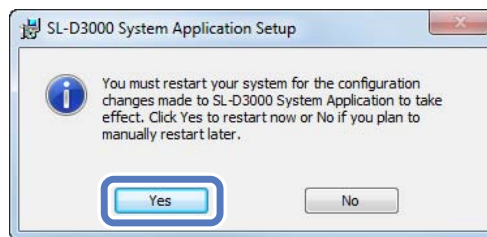
7 After the Client PC has restarted, start **SL-D3000 Maintenance Utility**.

8 Select the printer from the Registered Printer List, and then click **Pre-operation Check**.
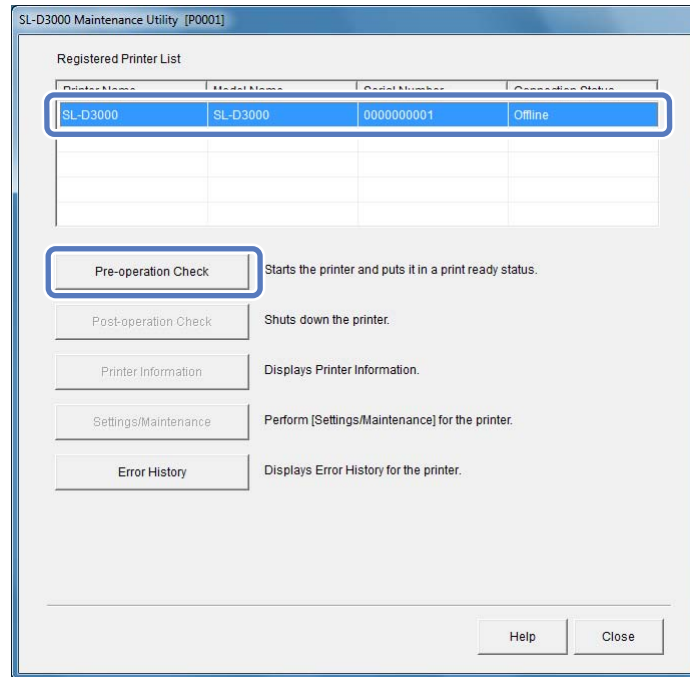
9 While the Pre-operation Check is running, the Printer PC (if connected) and the printer's firmware are upgraded or downgraded. The Pre-operation Check for upgrading or downgrading may take approximately 10 minutes longer than a normal Pre-operation Check because the system application version is being changed and the Printer PC will be restarted. After the Pre-operation Check is finished, the printer restarts and is ready to print.

> *Tip:*
> *When multiple printers are registered to the Client PC, the Client PC's system application is upgraded or downgraded first. When you start the Pre-operation Check the first time after upgrading or downgrading the Client PC, the Printer PC's system application and the firmware in the printer are upgraded or downgraded.*

Removing the System Application

Follow the steps below to remove the system application from the Client PC.

> *Note:*
> ❑ *Log on to the Client PC as a user with administrator authority.*
>
> ❑ *In Windows 7, if a password entry screen or confirmation message is displayed, enter the password to continue.*

1 Start the Client PC.

2 On the Control Panel, click **Uninstall a program** from Programs.
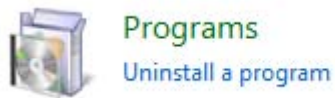
3 Select **SL-D3000 System Application**, and then click **Uninstall/Change** (or **Change/Remove/Add/Remove**).

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Preamble

Appendix

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In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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Appendix

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Appendix

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