

## **User's Guide**

Label Printer QL-710W/720NW



Be sure to read and understand this guide before using the machine. We recommend that you keep this guide nearby for future reference. Not all models are available in all countries.

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## 1 Using The Interface Cable

An RS-232C cable and Network cable are not standard accessories. Choose the appropriate cable for your interface.

- USB cable
   Use the enclosed interface cable.
- RS-232C cable (QL-720NW only)
   The pin assignments for serial cables (RS-232C cables) which can be used with this machine are shown in the table below. You can purchase these cables at an electronics store. Do not use an interface cable that is longer than 2 metres.

Brother QL side D-sub female, lock screw #4 - 40 (UNC). PC side (D-Sub9P female)

| Signal<br>Name | Pin<br>Number | Pin Assignments | Pin<br>Number | Signal<br>Name |
|----------------|---------------|-----------------|---------------|----------------|
| DCD            | 1             |                 | 1             | DCD            |
| RXD            | 2             |                 | 2             | RXD            |
| TXD            | 3             |                 | 3             | TXD            |
| DTR            | 4             |                 | 4             | DTR            |
| GND            | 5             |                 | 5             | GND            |
| DSR            | 6             |                 | 6             | DSR            |
| RTS            | 7             |                 | 7             | RTS            |
| CTS            | 8             |                 | 8             | CTS            |
| RI             | 9             |                 | 9             | RI             |

- The RS-232C serial connector part of this equipment is not Limited Power Source.
- Network cable (QL-720NW only)
   Use a straight-through Category5 (or greater) twisted-pair cable for 10BASE-T or 100BASE-TX Fast Ethernet Network.

#### **Important**

For USB connections, the included USB interface cable should be used to ensure compliance with the limits for EMC (Electromagnetic compatibility).

For serial and network interfaces, a shielded interface cable should be used to ensure compliance with the limits for EMC.

Changes or modifications not expressly approved by Brother Industries, Ltd. may affect the performance and print quality, and damage may not be covered under the limited warranty.

- Caution for LAN connections:
   Do not connect this machine to a LAN connection which is subject to overvoltages.
  - Caution for RS-232C connection:
     The RS-232C serial connector part of this equipment is not Limited Power Source.

## **Uninstalling Software and** Printer Driver

This section describes how to uninstall the software and printer driver. In the following steps, you will see XX-XXXX. Read "XX-XXXX" as your printer name.

### Uninstalling the software/User's Guide (Windows®)

For Windows® XP/Windows Server® 2003

From [Control Panel], go to [Add or Remove Programs]. The [Add or Remove Programs] dialog appears.

For Windows Vista<sup>®</sup>/Windows<sup>®</sup> 7/Windows Server<sup>®</sup> 2008 From the [Control Panel], go to [Programs] and open [Programs and Features]. The [Uninstall or change a program] window appears.

For Windows® XP/Windows Server® 2003

Choose the software/user's manual you want to remove, such as P-touch Editor 5.0. and click [Remove].

For Windows Vista<sup>®</sup>/Windows<sup>®</sup> 7/Windows Server<sup>®</sup> 2008 Choose the software/user's manual you want to remove, such as P-touch Editor 5.0, and click [Uninstall].

Click [OK]/[Yes]. The uninstall operation starts.

Close the [Add or Remove Programs] (Windows® XP/Windows Server® 2003)/[Programs and Features] (Windows Vista®/ Windows<sup>®</sup> 7/Windows Server<sup>®</sup> 2008) dialog.

Brother P-touch Editor/Brother P-touch Update Software/User's Guide has been uninstalled.

### Uninstalling the Printer Driver (Windows®)

1 Turn off the printer.

2 For Windows® XP

From [Control Panel], go to [Printers and Other Hardware], open the [Printers and Faxes] window.

For Windows Server® 2003

From [Control Panel], open the [Printers and Faxes] window.

For Windows Vista®

From [Control Panel], go to [Hardware and Sound] and open [Printers].

For Windows® 7

Click the <a> <a> <a> </a></a>, go to [Devices and Printers].

For Windows Server® 2008

From [Control Panel], open [Printers].

For details, see Windows<sup>®</sup> Help.

3 For Windows® XP/Windows Server® 2003

Choose "Brother XX-XXXX", and click [File] - [Delete].

For Windows Vista®/Windows® 7/Windows Server® 2008

Choose "Brother XX-XXXX", right click on the icon, and then click [Delete] (Windows Vista®/Windows Server® 2008)/[Remove device] (Windows® 7).

For Windows® XP/Windows Server® 2003
Go to [File] - [Server Properties].

For Windows Vista®

In the [Printers] window, right click and go to [Run as administrator] - [Server Properties...].

If the [Authorization confirmation] dialog appears, click [Continue]. If the [User Account Control] dialog appears, enter the password and click [OK].

For Windows® 7

Choose [Fax] or [Microsoft XPS Document Writer] in the [Devices and Printers] window, and then click [Print server properties], from the menu bar.

For Windows Server® 2008

In the [Printers] window, click [Server properties], which appears in the menu bar.

**5** For Windows<sup>®</sup> XP/Windows Server<sup>®</sup> 2003/Windows Server<sup>®</sup> 2008 Click the [Drivers] tab and choose "Brother XX-XXXX". Then, click [Remove].

For Windows Vista®

Click the [Drivers] tab and choose "Brother XX-XXXX". Then, click [Remove...].

For Windows<sup>®</sup> 7

Click the [Drivers] tab, and then click [Change Driver Settings]. (If a User Account Control message appears, type in the password, and then click [OK]).

Choose "Brother XX-XXXX", and then click [Remove...].

**6** For Windows<sup>®</sup> XP/Windows Server<sup>®</sup> 2003 Go to step **7**.

For Windows Vista<sup>®</sup>/Windows<sup>®</sup> 7/Windows Server<sup>®</sup> 2008 Choose [Remove driver and driver package], and then click [OK].

**7** Close the [Print Server Properties] window. The Printer Driver has been uninstalled.

### **Uninstalling P-touch Editor (Macintosh)**

1 On the drive where P-touch Editor is installed, double-click the "Applications" folder - "P-touch Editor 5.0" folder - "Uninstall P-touch" folder - "UninstallPtEditor.command".

The "Terminal" window appears, and the uninstall operation starts.

- Administrator rights are required for the uninstall operation.
  - In case the [Terminal] window does not appear by double-clicking the "UninstallPtEditor.command", right click (or press control key + click) the "UninstallPtEditor.command". The context menu appears. Open the [Terminal] window from the context menu.
- **2** Click **●** to close the [Terminal] window.
- **3** Delete the "P-touch Editor 5.0" folder from the "Applications" folder.
  - Before you delete the "P-touch Editor 5.0" folder, please check if any necessary files are saved in it.

P-touch Editor has been uninstalled.

### Uninstalling the Printer Driver (Macintosh)

- Turn off the printer.
- Click Apple menu [System Preferences], and click [Print & Fax] (Mac OS X 10.5.8 10.6)/[Print & Scan] (Mac OS X 10.7).
- Choose "Brother XX-XXXX", and click -.
- Close the [Print & Fax]/[Print & Scan] window.
  The Printer Driver has been uninstalled.

## 3 Example Labels

Here are some sample labels that you can create with Brother QL-710W/720NW. There are a variety of labels to choose from.

Choose the type of label you want to create.

# Meeting Minutes Project Alpha

Mr Michael Smith LBI Group 100, Clean View Ave.. Oxford, Oxon. OX14 3RT













M. Smith







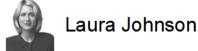
Mr. Walter Freeman 4555 Cumberland Pkwy. Dallas TX 95053

Halanlaldhaalalaalldadal

| P LBI      |                |  |
|------------|----------------|--|
| Department | Planning Dept. |  |
| Serial No. | 0011154        |  |
| Device No. | E6200-A4C      |  |



Best Hit Songs Jan. - Aug.



Information File 1

Mr Michael Smith LBI Group 100, Clean View Ave.. Oxford, Oxon. OX14 3RT

Ruislip, Berks.

IP Address: IP Address: 192.168. 1. 1 192.168. 1

Mr Andrew McCord LBI Group 232, Union Street, Aberdeen AB10 1TP

LBI Group 401, Cumberland Crescent

Mary Pat Chris John

Mr Robert Goodman LBI Group 15, Meadow Road, Aberdeen AB8 3GR



USB Cable CB-001



## 4 General Procedures

This section describes the general procedure for creating labels.

#### **■**Connect to the PC/Mac

**◀** Create the label data.

Enter text directly using P-touch Editor, or copy text from a Microsoft<sup>®</sup> Office application.

Use P-touch Editor's variety of editing functions to format and decorate your label. For details on how to create the labels, see the Help.

2 Print the label.

Print the label from the Brother QL printer.

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For details on how to print the labels, see the Help.

- (•) Remove labels from the label output slot to prevent labels piling up and causing paper jams.
- ■Use the machine without connecting to the PC (Windows® only)
  - Transfer Manager chapter of the Software User's Guide.)
- **2** Use the P-touch Template command to print the transferred template. (For details of the P-touch Template function, see the Software User's Guide in the CD-ROM.)

## 5 Status Lamp

### ■Definition of Status Lamp

Status lamp on the Brother QL printer indicates the current operating condition.

| Lamp                           | Condition  |
|--------------------------------|--|
| Not lit                        | Power is OFF.  |
| Green lamp is lit              | Power is ON.   |
| Green lamp is flashing         | Receiving data from the PC. Transferring data. Creating Printer Set-up Information data.   |
| Orange lamp is lit             | The roll cover is open. Close the roll cover correctly. The machine is in the transitional reset state.  |
| Orange lamp is flashing        | Cooling (Wait for the temperature of the print head to cool down). Reset in progress.  |
| Red lamp is lit                | The machine is booting.  |
| Red lamp is flashing<br>○۞○۞○۞ | Indicates one of the following errors. Red lamp flashing slowly (in one second intervals): • End of DK Roll • Incorrect DK Roll installed • Feed error • No DK Roll • Transmission error • The roll cover was opened (while running) • Data deployment error • Access point search/connection error  Red lamp flashing at irregular intervals: • Cutter error  Red lamp flashing quickly: • EEPROM error |

# 6 Mass Storage (QL-720NW only)

#### **■**Description

The mass storage feature allows you to execute commands by sending data from a computer or other device to the printer via USB. Files that have been copied to the printer's mass storage area are processed when you press the Wi-Fi button. This feature is useful in the following situations.

- When you want to apply settings that are stored in a command file (".bin" format) or templates that are stored in ".blf" format that were distributed by the administrator without using a customized tool.
- When you want to execute commands without installing the printer driver.
- When you want to use a device with an OS (including non-Windows operating systems) that has a USB host feature to print and transmit data.

#### **■**Using the Mass Storage Feature

- 1 Confirm that the printer is turned off.
- While holding down the Wi-Fi button, press and hold the power button.

When the Status and Wi-Fi lamps start to flash in green, release the Wi-Fi and power buttons.

After the lamps flash a few times, the Status lamp lights in green automatically.

- Connect the computer or device to the printer via USB. The printer's mass storage area is displayed on the computer or device's screen.

  If the mass storage area is not displayed automatically, refer to the operating
  - instructions for the computer or device's operating system for information about displaying the mass storage area.
- ♣ Drag and drop the file you want to copy to the mass storage area.
- **5** Press the Wi-Fi button. The command file is executed. While the file is being executed, the Wi-Fi lamp lights in green.
- 6 After the file has been executed, the Wi-Fi lamp turns off.
- To turn mass storage mode off, turn the printer off. The printer will start up in its normal operating mode.

- When the printer is turned off, mass storage mode is deactivated and any files in the mass storage area are deleted.
  - This feature supports ".bin" and ".blf" files. Do not use other file formats with this
    feature.
  - Do not create folders in the mass storage area. If a folder is created, files in the folder will not be executed.
  - The capacity of the mass storage area is 2.45 MB. Use of files larger than 2 MB cannot be guaranteed.
  - If multiple files are copied to the mass storage area, they are executed in the order they were copied. If multiple files are copied in one operation, the order that the files will be executed in cannot be quaranteed.
  - Wi-Fi, wired network interface and RS-232C features are not available while the printer is running in mass storage mode.

## 7 iPrint&Label

The Brother iPrint&Label application allows you to print directly to your Brother QL label printer from your Apple iPhone, iPad, and iPod touch or Android™ smartphone.

The Brother iPrint&Label application can be downloaded free-of-charge from App Store or the Google Play. Simply search for "Brother iPrint&Label" in App Store or the Google Play.

The Brother iPrint&Label application supports the following functions:

- Printing labels with text you input.
- Printing labels with text you input using templates.
- Printing pre-designed labels from the Label Collection.
- Printing labels with photos saved on your Apple iPhone, iPad, and iPod touch or Android™ smartphone.

The specifications of this product are subject to change without notice.

## 8 QL Utility

### **Overview**

The QL Utility is a computer program that allows you to change the printer's default settings.

Normally when using a computer program to print a document, print settings are specified in the printer driver's dialog box and then the data is sent to the printer. This utility can be used to adjust settings that are more advanced than the printer driver's settings.

(t) Use the QL Utility to configure the printer only when the printer is idle. The printer may malfunction if you attempt to configure it while it is handling a job.

### **Using the QL Utility**

#### ■Before Using the QL Utility

- Connect the printer to an AC power outlet.
- Make sure that the printer driver has been installed and is functional.
- Connect the printer to a computer via USB or RS-232C (QL-720NW only).

### ■Starting the QL Utility (Windows®)

- **1** Connect the printer to be configured to the computer.
- **2** Click [Start] [All Programs] [Brother] [Label & Mobile Printer] [Printer Setting Tool]. The [Printer Setting Tool] screen is displayed.
- 3 Select the printer connected in step 1.



Click the [Utility] button. The main window is displayed. See → How to Use the QL Utility.

#### ■Starting the QL Utility (Macintosh)

■ Connect the printer to be configured to the Mac.

Click [Macintosh HD] - [Applications] - [Brother] - [Utilities] - [Brother QL-7xx Utility].

The main window is displayed. See → How to Use the QL Utility.

#### ■How to Use the QL Utility

1 In the main window of the QL Utility, select the check boxes of the parameters with settings that you want to change.

2 Select the desired settings from the pull-down menus or enter the desired values.

Click [Apply] to save the settings in the printer.

The settings are saved when you quit the QL Utility, and the settings are applied the next time the QL Utility is started.

Note, however, that if the printer is already connected when the QL Utility is

Note, however, that if the printer is already connected when the QL Utility is started, the printer's settings are applied.

#### Power on when plugged in

Determines whether or not the printer turns on automatically when the power cord is connected. Available settings: **[OFF]**, **[ON]** 

#### Auto power-off time setting

Determines the amount of time that passes before the printer turns off automatically.

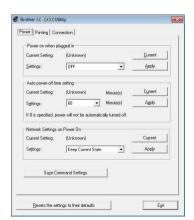
Available settings: [0], [10], [20], [30], [40], [50], [60]

This setting is disabled when connecting with wired network/wireless network.

#### **Network Settings on Power On**

Determines the conditions for connecting via Wi-Fi and wired network (QL-720NW only) when the printer is turned on.

Available settings: (QL-710W) [On by Default], [Off by Default], [Keep Current State] (QL-720NW) [Wireless LAN by Default], [Wired LAN by Default], [Keep Current State]



For Windows®

#### **Save Command Settings**

Saves the content of the items displayed in the selected tab as a command-format ".bin" file.

#### **Printer Information Output Settings**

Determines which information is printed when printing the printer's settings.

Available settings: (QL-710W) [AII], [Usage Log],

[Printer Settings]

(QL-720NW) [All], [Usage Log], [Printer Settings], [Printer Transfer Data]

#### Command Mode (QL-720NW only)

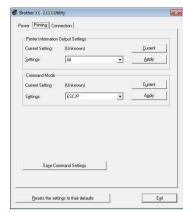
Sets the printer's command format.

Available settings: [Raster], [ESC/P], [P-touch Template]

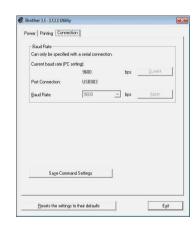
### Baud Rate (QL-720NW only) (Windows® only) (RS-232C connection only)

Sets the Baud Rate.

Available settings: [9600], [57600], [115200]



For Windows®



## 9 Maintenance

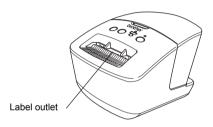
Maintenance of the machine can be performed as required. However, some environments require that maintenance be performed more frequently (e.g. in dusty conditions).

#### ■Print head maintenance

The DK Roll (thermal recording paper type) used with the machine is designed to clean the print head automatically. When the DK Roll passes the print head during printing and label feeding, the print head is cleaned.

#### ■Label outlet maintenance

If a label causes the machine to jam due to glue attached to the label outlet, remove the power cord and clean the label outlet with a cloth dipped into ethanol or isopropyl alcohol.



# 10 Troubleshooting

If the problems occur while using this machine, the following may help you to solve the problems.

#### **■**Potential types of problems

| Problem Solution   |  |  |
|--|--|--|
| I TODICITI   |  |  |
| The Brother QL printer does not print, or a printing error is received.  | <ul> <li>Is the cable loose? Check that the cable is connected securely.</li> <li>Is the DK Roll installed correctly? If not, remove the DK Roll and reinstall it.</li> <li>Is there enough roll remaining? Check that there is enough roll remaining.</li> <li>Is the DK Roll compartment cover open? Check that the DK Roll compartment cover is closed.</li> <li>Has a print error or transmission error occurred? Turn off the Brother QL printer and then turn it on again. If there is still a problem, contact your Brother dealer.</li> <li>If the printer is connected via a USB hub, try connecting it directly to the PC. If not, try connecting it to another USB port.</li> </ul> |  |
| The Status LED lamp is not lit.  | <ul> <li>Is the power cord inserted correctly?</li> <li>Check that the power cord is inserted. If it is inserted correctly, try plugging it into another electrical outlet.</li> </ul>   |  |
| A data transmission error appears on the PC/Mac.   | <ul> <li>Is the correct port chosen? (Windows® only) Check that the correct port is chosen from the "Print to the following port" list in the Printer Properties dialog box.</li> <li>Is the Brother QL printer in cooling mode (the Status lamp is flashing in orange)? Wait until the Status lamp stops flashing and then try printing again.</li> </ul>   |  |
| Labels are jammed in the cutter.   | Contact Brother customer service or your local Brother dealer.   |  |
| The label is not ejected properly after printing.  | <ul> <li>Check that the ejection path of the label is not blocked.</li> <li>Check that the DK Roll is set properly by removing the DK Roll and reinstalling it.</li> <li>Ensure that the DK Roll cover is closed properly.</li> </ul>  |  |
| After replacing the Roll while the Add-In feature was activated, the layout style was not updated. (Windows® only) | Close the P-touch Editor to exit the Add-In, and then reactivate the Add-In.   |  |
| The P-touch Add-In icon is not displayed on Microsoft <sup>®</sup> Word. (Windows <sup>®</sup> only)               | <ul> <li>Was Microsoft<sup>®</sup> Word started up from Microsoft<sup>®</sup> Outlook<sup>®</sup>?</li> <li>Is Microsoft<sup>®</sup> Word chosen as the default editor for Microsoft<sup>®</sup> Outlook<sup>®</sup>?</li> <li>Due to program limitations, the Microsoft<sup>®</sup> Word Add-In does not work with the above settings. Quit Microsoft<sup>®</sup> Outlook<sup>®</sup>, and restart Microsoft<sup>®</sup> Word.</li> </ul>   |  |
| Cutter error   | <ul> <li>If the cutter error occurs, keep the DK roll compartment cover<br/>closed and press the ON/OFF button. The cutter moves back to<br/>the normal position and turns the machine OFF automatically.<br/>After the machine is OFF, inspect the label outlet and remove<br/>the paper jam.</li> </ul>  |  |

| Problem  | Solution   |  |  |
|--|--|--|--|
|  | Set the label vertical to the print head as shown below.   |  |  |
|  | Print head Recommended print direction   |  |  |
|  | Some types of scanner are not able to read the bar code. Try using another scanner. We recommend printing the Bar code with Print Quality options set to "Give priority to print quality".   |  |  |
| The printed bar code cannot be read.                                     | Windows® XP: To change the Print Quality options, open the printer properties by going to [Control Panel] - [Printers and Other Hardware] - [Printers and Faxes], right click the printer you want to change the settings of, then select [Properties]. Then, in the [General] tab, click [Printing Preferences].  |  |  |
|  | Windows Vista®: To change the Print Quality options, open the printer properties by going to [Control Panel] - [Hardware and Sound] - [Printers], right click the printer you want to change the settings of, then select [Properties]. Then, in the [General] tab, click [Printing Preferences].  |  |  |
|  | Windows <sup>®</sup> 7: To change the Print Quality options, open the printer properties by going to ⑤ - [Devices and Printers], right click the printer you want to change the settings of, then select [Printer properties]. Then, in the [General] tab, click [Preferences].  |  |  |
|  | Mac OS X 10.5.8 - 10.7:<br>To change the Print Quality options, use the "Basic" tab in the printer properties.   |  |  |
| I want to reset the printer/delete the data transferred from the PC/Mac. | Press and hold the Cut button while holding down the ON/OFF button when the machine is turned off. When the Wi-Fi lamp starts flashing and the Status lamp lights orange, press the Cut button six times while continuing to hold down the ON/OFF button. The machine will then reset. All data transferred from the PC/Mac will be deleted and the machine will be reset to factory settings. |  |  |
| I want to cancel the current printing job.                               | Make sure that the printer is ON, and press the ON/OFF button.   |  |  |

| Problem   | Solution   |  |  |
|---|--|--|--|
| When printing via the USB cable, the printer repeatedly pauses and then continues printing. | • Is the printer set for sequential printing? If so, set the print mode to buffered printing.  Windows® XP: Open printer properties from [Control Panel] - [Printers and Faxes] and click the [Printing Preferences] button in the [Other] tab. Choose the option [After one page of data is received].  Windows Vista®/Windows® 7: Open [Devices and Printers] from [Control Panel]. Then rig click your QL printer and click [Printing Preferences]. Choot the option [After one page of data is received] in the [Other]  Mac OS X 10.5.8 - 10.7: Open the [Basic] tab in the printer properties. Choose the option [After one page of data is received].  • An alternative solution is to disconnect the LAN cable until to printing is completed.  For Windows® |  |  |
| Cannot print from wired network.  | Check that the wired network cable is connected. Is the wireless LED lit? If the LED is lit or flashing, press the Wi-Fi button to turn it off.  |  |  |
| Cannot install the printer driver for wired network.  | Check that the wired network cable is connected.     Is the wireless LED lit?     If the LED is lit or flashing, press the Wi-Fi button to turn it off.  |  |  |
| Cannot print from wireless network.   | Is the wireless LED lit?     If the LED is not lit, press the Wi-Fi button to light it.  |  |  |
| Cannot install the printer driver for wireless network.                                     | Is the wireless LED lit?     If the LED is not lit, press the Wi-Fi button to light it.  |  |  |

# 11 Main Specifications

### **■**Product specifications

| Items            |                      | QL-710W  | QL-720NW |
|------------------|----------------------|--|----------|
| Display          |                      | Wi-Fi lamp (green), Status lamp (green, orange, red)                                   |          |
|                  | Printing method      | Direct thermal printing via thermal head   |          |
|                  | Speed of printing*1  | Max. 150 mm/sec, Max. 93 labels<br>(When connected to the PC and connecting USB cable) |          |
| Print            | Print head           | 300 dpi/720 dot  |          |
| Fillit           | Max. printing width  | 59 mm  |          |
|                  | Max. printing length | 1 m  |          |
|                  | Min. printing length | 12.7 mm  |          |
| Cutter           |                      | Durable automatic cutter   |          |
| Button           |                      | ON/OFF button ((b)), Wi-Fi button, Feed button († ), Cut button (%)                    |          |
| Power supply     |                      | 220 - 240 V AC 50/60 Hz 1.1 A  |          |
| Size (W × D × H) |                      | 128 × 236 × 153 mm   |          |
| Weight           |                      | Approx. 1.2 kg (Without DK Rolls)  |          |

<sup>\*1</sup> Depends on the media (tape/label) used.

#### **■**Operating environment

| Items                 |                         | QL-710W   | QL-720NW  |
|-----------------------|-------------------------|---|---|
| os                    | Windows <sup>® *1</sup> | Windows® XP/Windows Vista®/Windows® 7<br>Windows Server® 2003/2008/2008R2<br>(OEM installations supported)  |   |
|                       | Macintosh               | Mac OS X 10.5.8 - 10.7  |   |
| Interface             | Windows <sup>®</sup>    | USB Full speed,<br>Wireless Network   | RS-232C <sup>*3</sup> ,<br>USB Full speed,<br>Ethernet 10BASE-T/100BASE-TX,<br>Wireless Network |
|                       | Macintosh               | USB Full speed,<br>Wireless Network   | USB Full speed,<br>Ethernet 10BASE-T/100BASE-TX,<br>Wireless Network                            |
| Hard                  | Windows <sup>®</sup>    | Disk space more than 70 MB*2  |   |
| Disk                  | Macintosh               | Disk space more than 200 MB*2   |   |
| Memory                | Windows <sup>®</sup>    | Windows <sup>®</sup> XP: 128 MB or more<br>Windows Server <sup>®</sup> 2003: 256 MB or more<br>Windows Vista <sup>®</sup> /Windows Server <sup>®</sup> 2008/2008 R2: 512 MB or more<br>Windows <sup>®</sup> 7: 1 GB (32-bit) or 2 GB (64-bit) or more |   |
|                       | Macintosh               | Mac OS X 10.5.8: 512 MB<br>Mac OS X 10.6: 1 GB or<br>Mac OS X 10.7: 2 GB or   | more  |
| Others                |                         | CD-ROM drive  |   |
| Operating temperature |                         | 10 to 35 °C   |   |
| Operating humidity    |                         | 20 to 80% (without condensation)  |   |

 <sup>\*1</sup> The computer should meet the Microsoft<sup>®</sup> recommendations for the installed OS.
 \*2 Required available space when installing the software with all of the options.
 \*3 Windows/Mac Printer drivers do not support printing via RS-232C.