

# ONLINE MANUAL

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PRINTER LAN CARD (PR-LN1)



Notation:

This manual uses the following notation regarding the operation of this product. See the "Notes on safety" for information on the notation related to the safe use of the LAN card.



Caution

This indicates a cautionary remark covering the operation of the LAN card or restrictions on available functions. Be sure to read this remark to ensure that you operate the LAN card correctly.



Hint

This indicates reference information related to the operation of this LAN card. The reference information should be read together with the relevant information in the manual.

- Screen shots and illustrations appearing in this manual are examples. Depending on the LAN card model used, the contents of these screen shots and illustrations may differ from the actual screens, filenames and the like that are encountered during actual operation.
  - The specifications and other information appearing in this manual are subject to change for improvement.
  - In this manual, descriptions for PR-LN1 are identical to those for PR-LN1 (this model).
- 
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# TO USE THIS PRODUCT SAFELY

Before attempting to use the LAN card, carefully read and understand the following notes to ensure the correct and safe use of the card. These notes contain information on the safe handling of the LAN card as well as general information for ensuring the safety of the operator. This manual also contains notes on safety covering the use of a printer that uses this LAN card. Be sure to read these notes before using the printer.

## Warning symbols

This manual uses a variety of warning symbols. These graphics are intended to serve as markers to ensure the safe and correct use of the LAN card and to prevent users and bystanders from being injured, and to prevent property damage. The warning symbols and their meaning are explained below. Carefully read the explanations and acquire a good understanding of their content.



**Warning**

This indicates a hazardous situation likely to result in death or serious personal injury if the user does not use the product correctly.



**Caution**

This indicates a hazardous situation that could result in minor or moderate personal injury or property damage if the user does not use the product correctly.

To identify the type of potential injury or damage, the following symbols are used together with the above cautionary and warning symbols:



Indicates a warning (or caution). A specific warning or caution statement is indicated in or around the drawing containing the symbol.



Indicates an action that is prohibited. A specific warning or caution statement explaining the prohibited action is indicated in or around the drawing containing the symbol.



Indicates a restricted action or an action to be performed. A specific statement explaining the instruction is indicated in or around the drawing containing the symbol.

 **Warning**



DO NOT DISASSEMBLE

Do not disassemble or modify the LAN card. Have the dealer where you purchased your LAN card check, adjust and/or repair it.



DISCONNECT POWER PLUG

Do not expose the LAN card to shock or vibration. If the LAN card is damaged as a result of shock or vibration, disconnect the power plug of the printer from the outlet and contact your dealer. Otherwise, a fire or electric shock may occur.



PROHIBITED

Keep all cords and cables connected to the LAN card out of the reach of children. Otherwise, an electric shock or injury may occur.



DISCONNECT POWER PLUG

Before removing the LAN card, first disconnect the power plug of the printer from the outlet.



ELECTRIC SHOCK

If the printer is equipped with a grounding wire for preventing electric shock, connect the grounding wire to a grounding-type outlet with a regular grounding terminal or to a class 1 through class 3 grounding terminal. Do not connect the grounding wire to a gas pipe, water supply pipe, telephone line ground, or lightning rod.



DISCONNECT POWER PLUG

If you notice any abnormality with regard to this product, turn off the power to the printer immediately, and then disconnect the power plug of the printer from the outlet. Then ask your dealer to perform the necessary checks and repairs. Otherwise, a fire or electric shock may occur.

- The LAN card is abnormally hot or emits smoke or an unusual smell.
- Foreign matter (such as metal or liquid) has come in contact with the LAN card.

 **Caution**



PROHIBITED

When removing the printer power plug from the outlet, do not yank on the power cord. Yanking on the power cords may cause the core of the power cord to be damaged, causing fire and/or electric shock; be sure to grasp the plugs and not the cords.



PROHIBITED

Do not use or store the LAN card in any of the following locations. Doing so may cause failure.

- Location exposed to shock or vibration
- Location that is unstable or on a slope
- Location exposed to direct sunlight
- Location that is humid or dusty
- Location where much water is used (kitchen or bathroom)
- Location close to heat-generating equipment (stoves or heaters)
- Location exposed to sharp temperature changes
- Location close to a source of strong magnetic or radio waves (magnet, radio, wireless equipment, etc.)



OBSERVE

Before using the LAN card, verify that all cords and cables are connected correctly and securely.



DISCONNECT POWER PLUG

Before moving the LAN card, disconnect the power plug of the printer from the outlet.



DISCONNECT POWER PLUG

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If the LAN card is not to be used for extended periods of time, disconnect the power plug of the printer containing the card from the outlet to ensure safety. (This applies, for example, when the user will be gone on vacation).

# PREFACE

Thank you for purchasing this product.

This manual describes how to configure and use the LAN card. Be sure to read through this manual thoroughly to ensure that you operate the LAN card safely. The manual has information on different models. Therefore, some of the product specifications appearing in the manual may differ from those for the LAN card you purchased. For information on the printer models compatible with your LAN card, see the system configuration chart, the pertinent catalog, and other information sources.

## Abbreviations used in this manual

- Windows Server 2003 stands for Microsoft® Windows Server™ 2003, Standard Edition
- Windows XP stands for Microsoft® Windows® XP Professional or Microsoft® Windows® XP Home Edition
- Internet Explorer stands for Microsoft® Internet Explorer
- Netscape stands for Netscape® Communicator
- Acrobat Reader stands for Adobe® Acrobat® Reader
- Adobe Reader stands for Adobe® Reader®
- Windows Vista stands for Windows Vista® Enterprise, Windows Vista® Business, Windows Vista® Ultimate, Windows Vista® Home Premium, Windows Vista® Home Basic
- Windows Server 2003 x64 stands for Microsoft® Windows Server® 2003, Standard x64 Edition
- Windows XP x64 stands for Microsoft® Windows® XP Professional x64 Edition
- Windows Server 2008 stands for Microsoft® Windows Server® 2008 Standard or Microsoft® Windows Server® 2008 Enterprise
- Windows 7 stands for Windows® 7 Enterprise, Windows® 7 Professional, Windows® 7 Ultimate, Windows® 7 Home Premium, Windows® 7 Home Basic, Windows® 7 Starter
- Windows Server 2008 R2 stands for Microsoft® Windows Server® 2008 R2 Standard, Microsoft® Windows Server® 2008 R2 Enterprise
- Windows 8 stands for Windows® 8, Windows® 8 Pro, Windows® 8 Enterprise
- Windows Server 2012 stands for Microsoft® Windows Server® 2012 Datacenter, Microsoft® Windows Server® 2012 Standard, Microsoft® Windows Server® 2012 Essentials
- Windows 8.1 stands for Windows® 8.1, Windows® 8.1 Pro, Windows® 8.1 Enterprise
- Windows Server 2012 R2 stands for Microsoft® Windows Server® 2012 R2 Datacenter, Microsoft® Windows Server® 2012 R2 Standard, Microsoft® Windows Server® 2012 R2 Essentials
- Windows 10 stands for Windows® 10 Home, Windows® 10 Pro, Windows® 10 Enterprise

- Windows XP/Windows Server 2003 stands for Windows XP or Windows Server 2003
- Windows XP/Vista/Windows Server 2003 stands for Windows XP, Windows Vista, or Windows Server 2003
- Windows x64 stands for Windows XP x64 Edition or Windows Server 2003 x64 Edition
- Windows Vista/Server 2008 stands for Windows Vista and Windows Server 2008
- Windows XP/Vista/Windows Server 2003/2008 stands for Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008
- Windows XP/Vista/7/8/Windows Server 2003/2008/2008 R2/2012 stands for Windows XP, Windows Vista, Windows 7, Windows 8, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, and Windows Server 2012
- Windows XP/Vista/7/8/8.1/Windows Server 2003/2008/2008 R2/2012/2012 R2 stands for Windows XP, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, and Windows Server 2012 R2
- Windows XP/Vista/7/8/8.1/10/Windows Server 2003/2008/2008 R2/2012/2012 R2 stands for Windows XP, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, and Windows Server 2012 R2

# INSTALLING THE LAN CARD

This section explains the procedure for installation of the LAN card. Once you connect the installed LAN card to the network with the procedure appropriate to your particular user environment, you can use the printer including the LAN card as a network printer. Proceed with the installation while referring to the appropriate chapters in this manual.



Caution

- Depending on the user environment, the installation procedure you will need to perform may differ from that described in this manual.
- Install the printer driver on your PC beforehand.

## LAN card setup utilities

You can use the following utilities to set up the LAN card. Select a utility that suits your user environment.

### Setup tools

Quick Setup	Used to install the LAN card initially (recommended).	Chapters 3
Advanced Setup	Used to make detailed LAN card configuration settings, change the configuration, and manage the LAN card.	Chapter 4
PR-PortManager	Used to install print client software and Popup Status Monitor.	Chapters 3

## Installing and configuring the LAN card (steps to be performed by the administrator)

The LAN card installation and configuration procedure is as follows:

Step 1 Installation	Connecting the LAN card to the printer and the network.	Chapter 1
Step 2 Configuration	Using the LAN card in a Windows XP/Vista/7/8/8.1/10/ Windows Server 2003/2008/2008 R2 / 2012/2012 R2 environment.	Chapter 3
Step 3 Printing	Performing test printing (self-diagnostic printing) to verify the configuration.	Chapter 4

## Configuring the LAN card (steps to be performed on the client)

The LAN card configuration procedure is as follows:

Step 1 Configuration	Using the LAN card in a Windows XP/Vista/7/8/8.1/10/ Windows Server 2003/2008/2008 R2 / 2012/2012 R2 environment.	Chapter 3
Step 2 Printing	Performing test printing (self-diagnostic printing) to verify the configuration.	Chapter 4

# DETAILED CONFIGURATION SETTINGS, CONFIGURATION CHANGES, AND MANAGEMENT OF THE LAN CARD

You can use the integrated utility AdminManager to make detailed configuration settings, change configuration settings, and manage the LAN card.

## Functions for configuration settings

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Use AdminManager to configure the LAN card.

Chapter 4

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Set the values from the web browser.

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# CHAPTER 1

## PR-LN1 OVERVIEW

This chapter outlines the features and operating environment of the LAN card PR-LN1 and how to connect it to a network.

### PR-LN1 FEATURES

- 10BASE-T and 100BASE-TX supported (automatic recognition)
- Popup Status Monitor included
- Quick Setup included for simple configuration
- HTTP included to enable configuration from a Web browser
- Integrated utility AdminManager included as a standard feature
- Integrated client software PR-PortManager included as a standard feature
- E-mail send/receive function included

#### **Additional security features**

An IP filter is provided as a security feature for a network printer. The filter checks IP addresses and limits access to the PR-LN1. More specifically, it inhibits access from a certain range of IP addresses or only accepts access from a certain range of IP addresses, thereby protecting the printer from unexpected access attempts.

#### **Equipped with DDNS (Dynamic Domain Name System) function**

This function notifies a DNS server containing a DDNS function of the PR-LN1's IP address. Therefore, even when PR-LN1 dynamically obtains an IP address from the DHCP server, this IP address is immediately reflected on the domain name system to prevent inconsistencies between domain names and the IP address.

#### **Equipped with Popup Status Monitor function**

This function, which displays the printer status on the PC screen, keeps the user up to date on the current printer status.

# OPERATING ENVIRONMENT

## Equipment required for network connection

- Network cable (category 5 or higher in a 100BASE-TX environment)
- Printer

## Supported protocols and operating systems

The PR-LN1 supports:

- Protocol: TCP/IP
- Operating systems:  
Windows XP (32/64 bit), Windows Server 2003 (32/64 bit), Windows Vista (32/64 bit),  
Windows 7 (32/64 bit), Windows 8 (32/64 bit), Windows 8.1 (32/64 bit), Windows 10 (32/64 bit)  
Windows Server 2008 (32/64 bit), Windows Server 2008 R2 (64 bit), Windows Server 2012 (64 bit),  
and Windows Server 2012 R2(64bit)



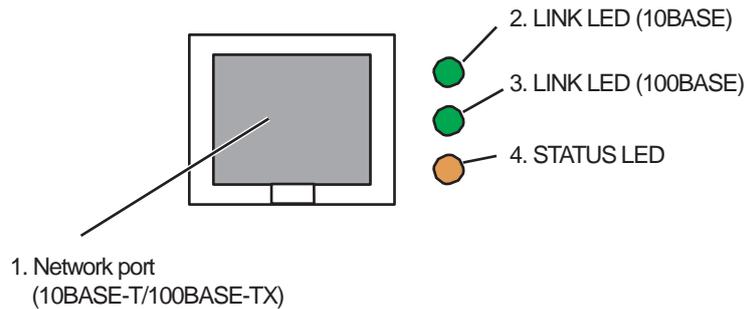
Caution

- You cannot use the LAN card in an environment containing connections that beyond the range of the router (such as a WAN environment).
- When connecting the LAN card to a printer, you cannot connect a parallel interface or a USB interface to that printer at the same time.

# EXPLANATION OF COMPONENTS

## Name and function of each component

### Display Panel



#### 1. Network port (automatic 10BASE-T/100BASE-TX recognition)

Used for network cable connection.

(The port is category 5 or higher in a 100BASE-TX environment.)

#### 2. LINK LED 10BASE (green)

Goes on when 10BASE-T connection with the network is established.

#### 3. LINK LED 100BASE (green)

Goes on when 100BASE-TX connection with the network is established.

#### 4. STATUS LED (orange)

Blinks during communication.

# INSTALLATION METHOD

## Installing the LAN card



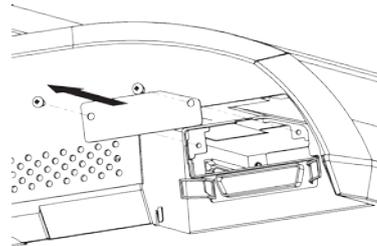
Caution

- Before installing the LAN card, be sure to read the printer manual. The installation method and location may vary from one printer to another.
- Before installing the LAN card, confirm that the printer power cord is disconnected from its outlet.
- Even if the LAN card has been used only once, be sure to restore the factory default settings (the configuration settings made at shipment from the factory).
- When the LAN interface is connected, a parallel or USB interface cannot be used.

### Installing the LAN card in the DL3750+/DL3850+

This LAN card can be installed in the DL7400/DL7600/DL3750+/DL3850+. The installation procedures are different between the DL7400/DL7600 and DL3750+/DL3850+. The LAN card installation procedures explained here are for the DL3750+/DL3850+ series.

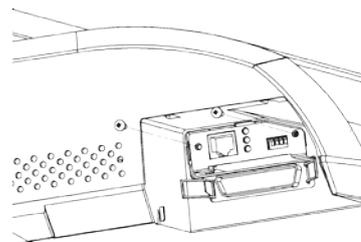
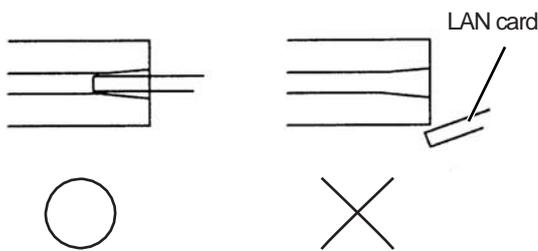
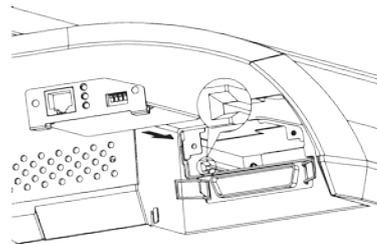
1. Turn off the power to the printer, disconnect the power cord, and then remove the optional interface cover of the printer.



Caution

Installing the LAN card in a printer that is switched on may cause a printer failure.

2. Install the LAN card by inserting it into the guides and sliding it in until it stops.



3. Confirm that the power to the printer is off, and then insert the power cord.



Caution

Be careful because parts of the printed wiring board in the printer may still be hot. Do not touch the printed wiring board. Doing so may cause a failure.

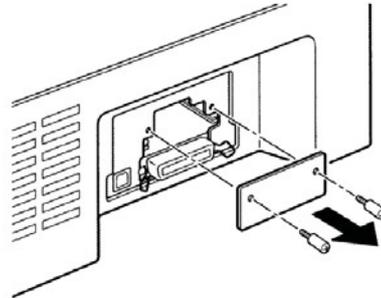
## Installing the LAN card in the DL7400/DL7600

This LAN card can be installed in the DL7400/DL7600/DL3750+/DL3850+. The installation procedures are different between the DL7400/DL7600 and DL3750+/DL3850+. The LAN card installation procedures explained here are for the DL7400/DL7600 series.

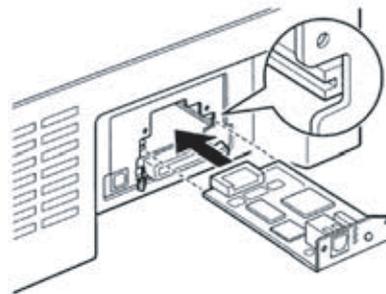
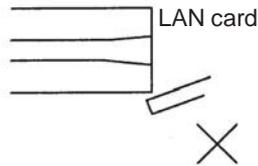
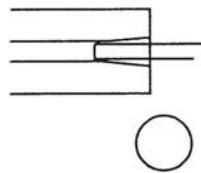
1. Turn off the power to the printer, disconnect the power cord, and remove the option interface cover from the printer.



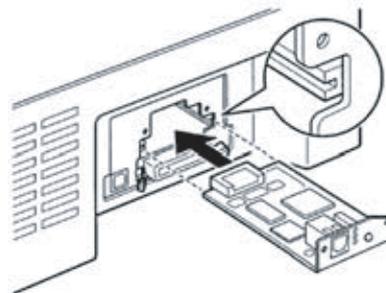
Installing the LAN card in a printer that is turned on may cause a printer failure.



2. Verify that the LAN card can be inserted into the guides. Then install the LAN card by inserting it into the guides and sliding it in until it stops.



3. Confirm that the power to the printer is off, and then insert the power cord.



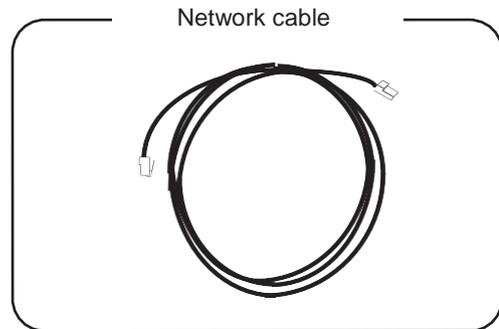
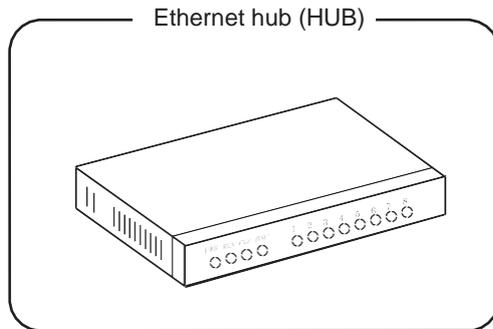
Be careful because parts of the printed wiring board in the printer may still be hot. Do not touch the printed wiring board. Doing so may cause a failure.

## Connecting the LAN card to the network

Before connecting the LAN card to the network, obtain the following components:

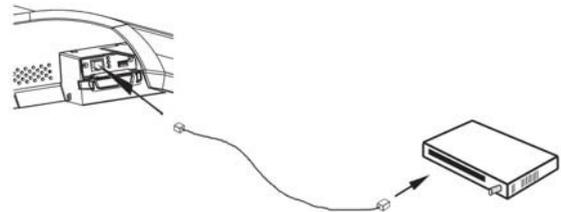


To use the LAN card in a 100BASE-TX environment, obtain a 100BASE-compatible Ethernet hub and network cable (category 5 or higher).



### Procedure for connecting the LAN cable to the network

1. Confirm that the power to the printer is off.
2. Connect one end of the network cable to the network port (10BASE-T/100BASE-TX) on the LAN card.
3. Connect the other end of the network cable to the Ethernet hub (HUB).
4. Turn on the power to the printer and confirm that the LINK LED light on the LAN card goes on.



# CHAPTER 2

## USER SOFTWARE

This chapter explains the User Software, which includes the LAN card setup tools, integrated utilities, and manual. You can use the User Software in a Windows environment.



Caution

- You cannot use the User Software in a UNIX, Linux, or NetWare environment.
- The User Software does not support MacOS environments.
- You can use User Software in an Internet Explorer 4.0 (SP2) or higher browser environment.

## USING THE USER SOFTWARE IN A WINDOWS ENVIRONMENT

Insert the User Software CD-ROM supplied with the LAN card into your computer's CD-ROM drive. The main menu will automatically start up.



Caution

- If the main menu does not automatically start up, directly execute Autorun.exe from the root directory of the CD-ROM.
- If the operating system is Windows Vista/7/Server 2008/2008 R2 and the AutoPlay window appears, select Run AUTORUN.EXE.
- If the operating system is Windows 8/8.1/10/Server 2012/2012 R2, the toast window appears, select window, and select Run AUTORUN.EXE.



### ReadMe

This menu item contains notes on using the CD-ROM and the contact address you can use when sending questions about the LAN card. Before using the LAN card, be sure to read this information.

### Setup

Select this menu item to install the LAN card setup tools (Quick Setup or Advanced Setup) and the integrated client software (PR-PortManager).

### Manual

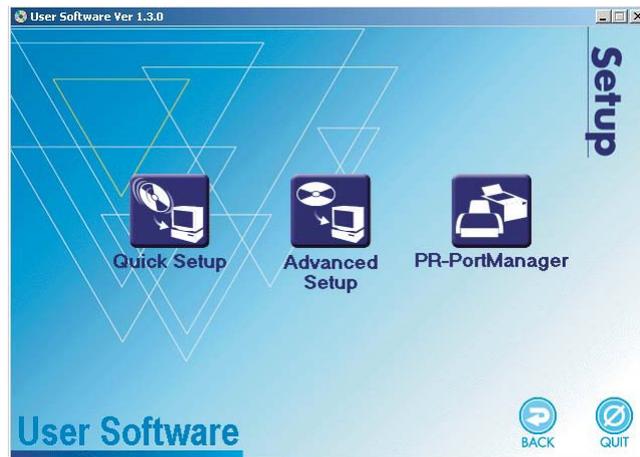
This menu item provides a manual in PDF format.

## About Setup

Selecting Setup from the menu displays a screen that allows you to select a LAN card setup tool. Select the setup method you wish to use.



If the LAN card has already been initially installed, you can use the LAN card simply by installing PR-PortManager on your PC.



### Quick Setup (recommended when you are initially installing the LAN card)

Quick Setup allows you to initially install the LAN card in an easy fashion, using a wizard. After this initial installation, you can continue with the installation of the printing client software PR-PortManager. This method is recommended when you are initially installing the LAN card.

### Advanced Setup

Advanced Setup starts or installs the integrated utility AdminManager, which allows you to make detailed LAN card configuration settings and manage the printer.

### PR-PortManager

Installs printing client software for printing directly from Windows and also installs Popup Status Monitor. You can choose from between the LPR (manufactured to Fujitsu Isotec specifications) and IPP.

# CHAPTER 3

## USING THE LAN CARD IN A WINDOWS XP/VISTA/7/8/8.1/10/WINDOWS SERVER 2003/2008/2008 R2/2012/2012 R2 ENVIRONMENT

This chapter explains how to connect the LAN card in a Windows XP/Vista/7/8/8.1/10/Windows Server 2003/2008/2008 R2/2012/2012 R2 environment and perform printing via TCP/IP.

### PRINTING IN A WINDOWS XP/VISTA/7/8/8.1/10/ WINDOWS SERVER 2003/2008/2008 R2/2012/ 2012 R2 ENVIRONMENT VIA TCP/IP

The procedure for printing using the LAN card via TCP/IP is as follows:



Caution

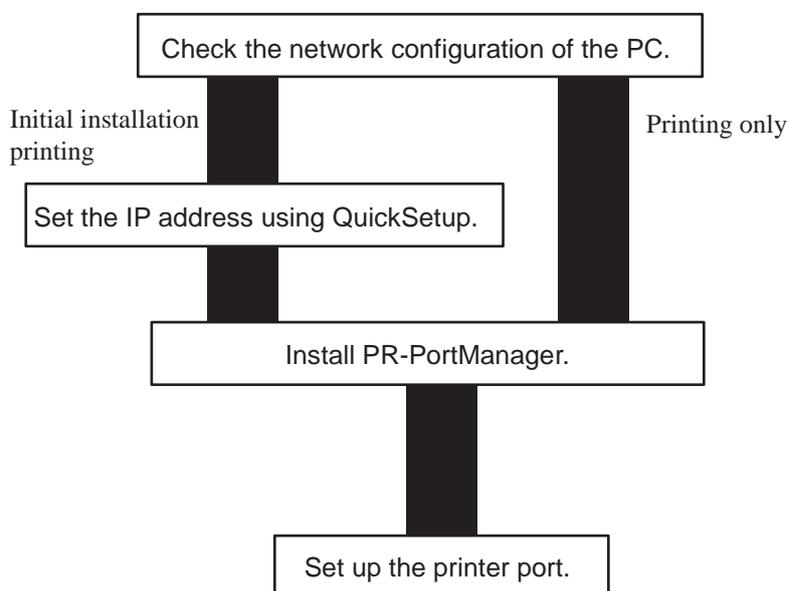
- Install the printer driver on your PC beforehand.
- Administrator privileges are required for settings.
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.



Hint

When printing using the standard print client of Windows XP, Windows Server 2003, Windows Vista, Windows 7/8/8.1/10, or Windows Server 2008/2008 R2/2012/2012 R2, see the section entitled "Printing using the standard print client of the operating system" in this chapter.

Flow of setting and operation

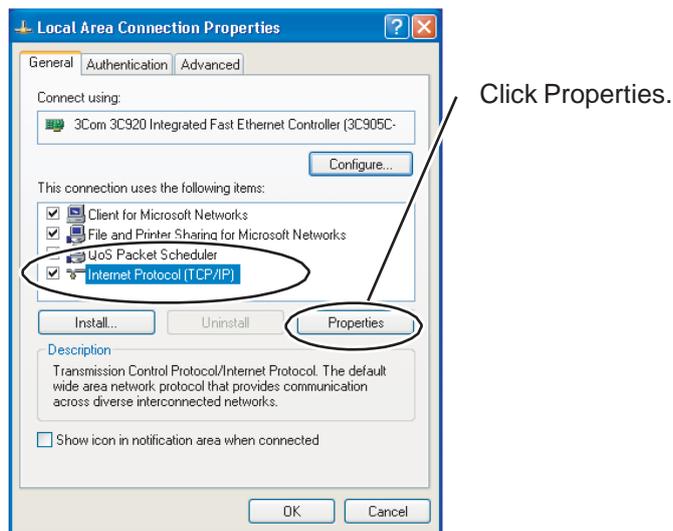


## Checking the network configuration on the PC

### If your operating system is Windows XP:

Confirm that Internet Protocol (TCP/IP) has been added to Windows XP.

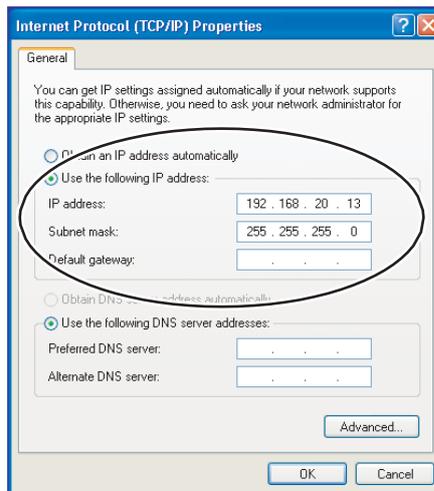
1. Select Start, Settings, Control Panel, Network and Internet Connections, and then Network Connections.
2. Open the Local Area Connection Properties window.
3. Confirm that Internet Protocol (TCP/IP) has been added.



Hint

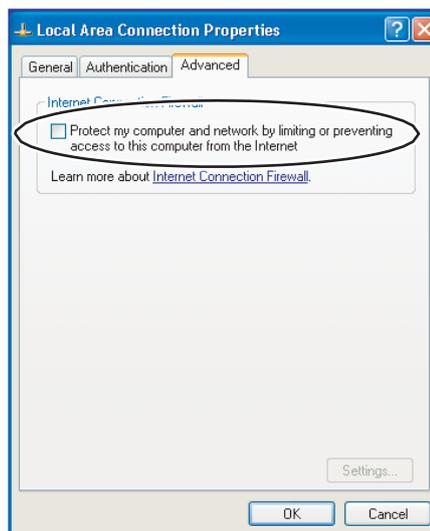
If Internet Protocol (TCP/IP) is not included in the protocols list, click Install and select Select Network Component Type, Protocol, and Internet Protocol (TCP/IP) to add this protocol.

4. On the General tab, confirm that the settings are appropriate for your particular environment.



Caution

To use the TCP/IP protocol in a Windows XP environment, uncheck **Protect my computer and network by limiting or preventing access to this computer from the Internet** on the **Advanced** tab in the **Local Area Connection Properties** window.

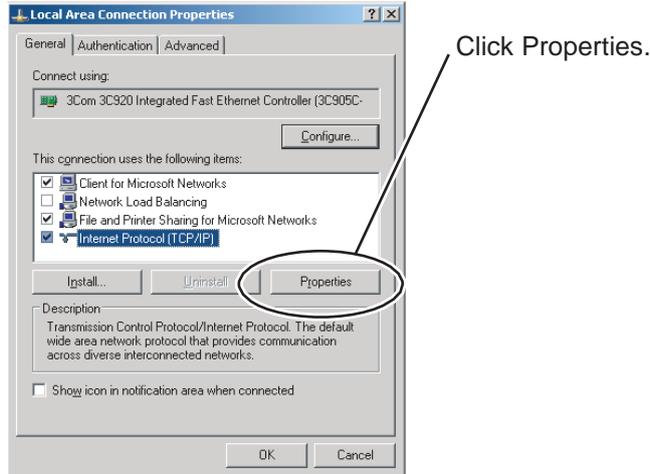


### If your operating system is Windows Server 2003:

Confirm that Internet Protocol (TCP/IP) has been added to Windows Server 2003.

1. Select Start, Control Panel, Network Connections, and then Local Area Connections.
2. Open the Local Area Connection Properties window.

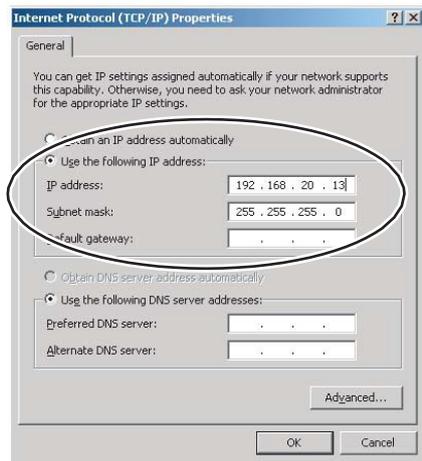
3. Confirm that Internet Protocol (TCP/IP) has been added.



Hint

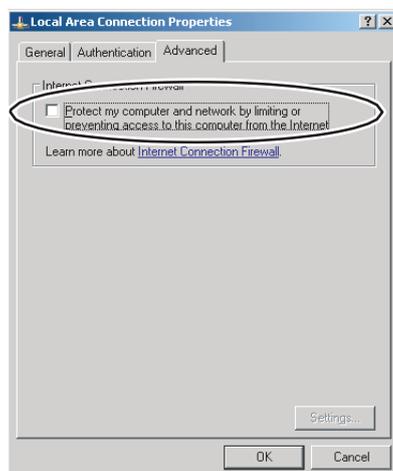
If Internet Protocol (TCP/IP) is not included in the protocols list, click Install and select Select Network Component Type, Protocol, and Internet Protocol (TCP/IP) to add this protocol.

4. On the General tab, confirm that the settings are appropriate for your particular environment.



Caution

To use the TCP/IP protocol in a Windows Server 2003 environment, uncheck Protect my computer and network by limiting or preventing access to this computer from the Internet on the Advanced tab in the Local Area Connection Properties window.



## If your operating system is Windows Vista/7/8/8.1/10/Server 2008/ 2008 R2/2012/2012 R2:

Confirm that Internet Protocol Version 4 (TCP/IPv4) has been added to Windows Vista/7/8/8.1/10/Server 2008/ 2008 R2/2012/2012 R2.

1. Select Start (\*1), Control Panel, Network and Internet, Network and Sharing Center, Manage Network Connections(\*2), and then Local Area Connection(\*3).

\*1 This is the Windows logo displayed at the bottom left of the screen.

The mouse is taken to the screen lower left corner for Windows 8/Server 2012, it right-clicks, and "Control panel" is clicked.

The Windows logo of the screen lower left corner for Windows 8.1/10/Server 2012 R2, it right-click, and Control Panel is clicked.

\*2 If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the Change adapter settings.

\*3 If the operating system is Windows 8/8.1/10/Server 2012/2012 R2, it becomes "Ethernet".

2. Click the Properties in the Local Area Connection Status window.

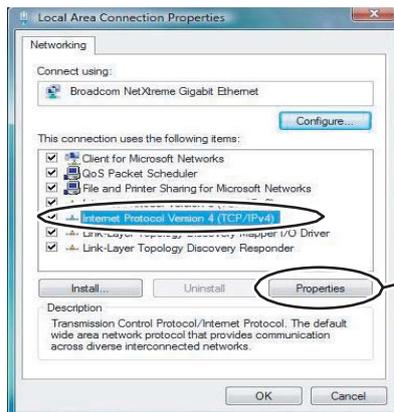


Caution

If the User Account Control window appears, click Continue.

If the operating system is Windows 8/8.1/10/Server 2012/2012 R2, it becomes the property of "Ethernet Status".

3. Confirm that Internet Protocol Version 4 (TCP/IPv4) has been added.



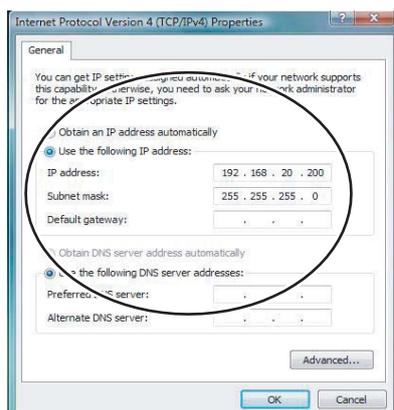
Click Properties.



Hint

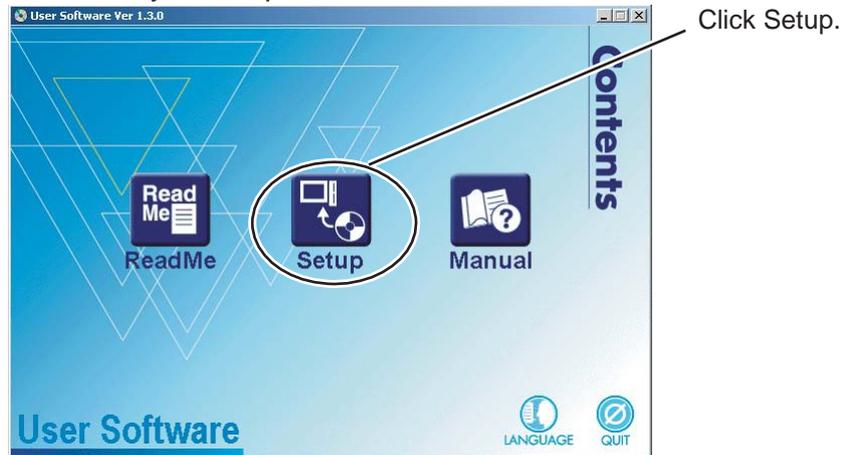
If Internet Protocol Version 4 (TCP/IPv4) is not included in the list, click Install and select Select Network Feature Type, Protocol, and Internet Protocol Version 4 (TCP/IPv4) to add this protocol.

4. On the General tab, confirm that the settings are appropriate for your particular environment.



## Simple setup using Quick Setup

1. Insert the CD-ROM (User Software) provided with the LAN card into the CD-ROM drive of your computer running Windows. The main menu will automatically start up.



Caution

- If the operating system is Windows Vista/7/Server 2008/2008 R2, the AutoPlay window appears. Select Run AUTORUN.EXE.
- If the operating system is Windows 8/8.1/10/Server 2012/2012 R2, the toast window appears, select window, and select Run AUTORUN.EXE.

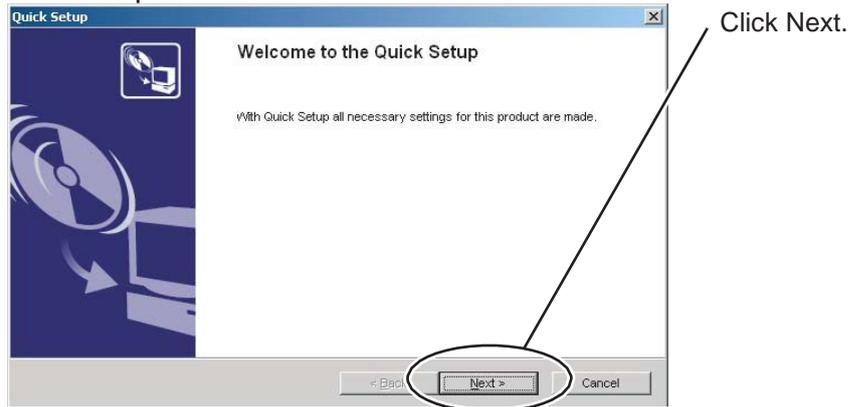
2. A window for selecting a setup method opens.



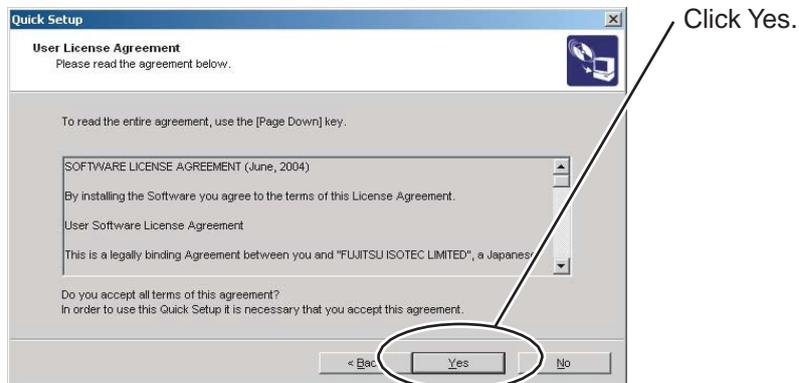
Caution

- If Windows Vista/Server 2008 is used and the User Account Control window appears, select Allow.
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.
- In a Windows XP (with SP2 or later)/7/8/8.1/10, or Server 2003/2008 R2/2012/2012 R2 environment, the following message appears. Click Yes.  
"When using this application, it needs to be added to the exceptions list of the Windows firewall.  
Do you want to add this application to the exceptions list?"

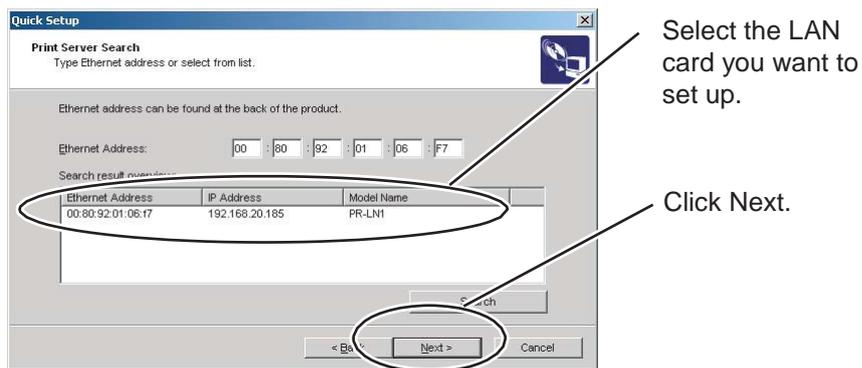
### 3. Quick Setup starts.



### 4. Check the software license agreement.



### 5. Select this LAN card.



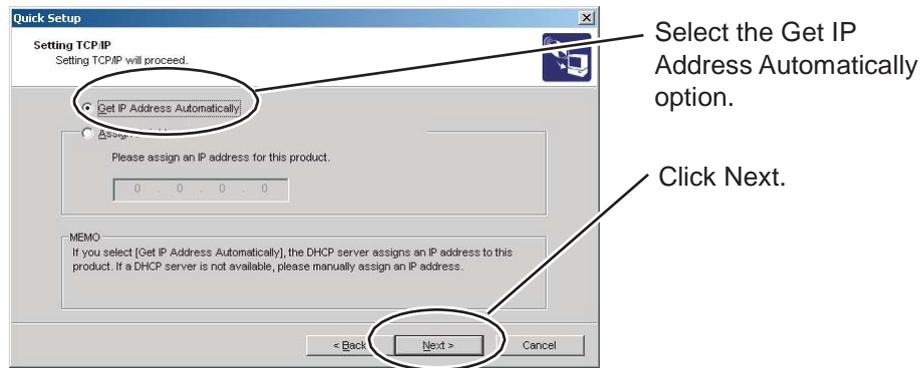
Hint

- For the Ethernet address, check the label attached to the LAN card.
- If this LAN card is not included in the search result list, click Search. You can also select this LAN card by directly entering the Ethernet address.

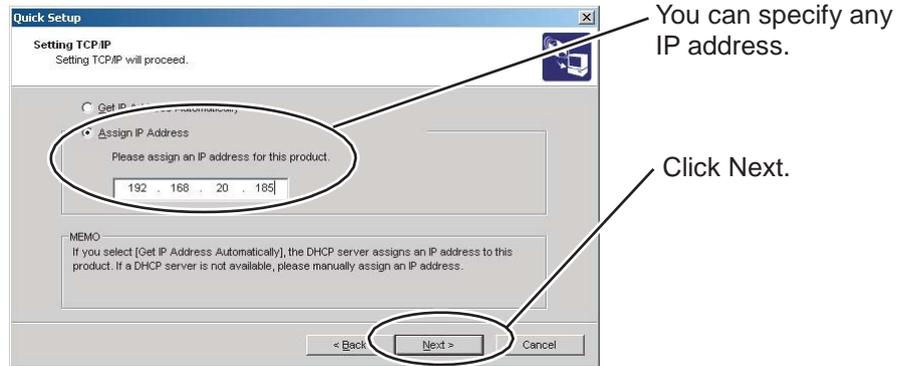
## 6. Set the IP address.

<If your environment includes a DHCP server:>

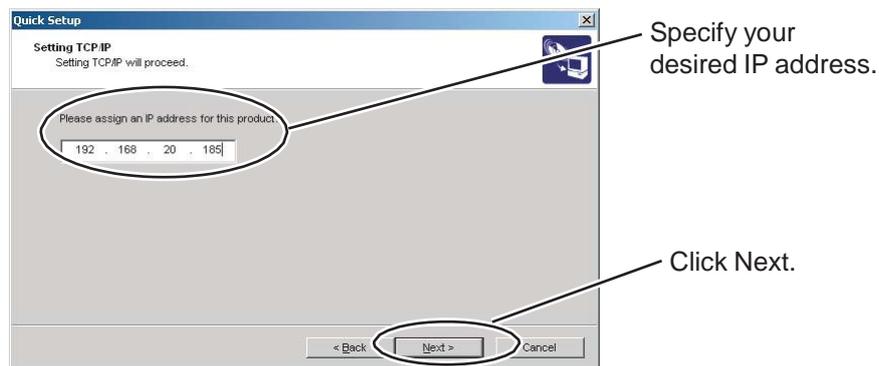
### (A) Automatic IP address acquisition from the DHCP server



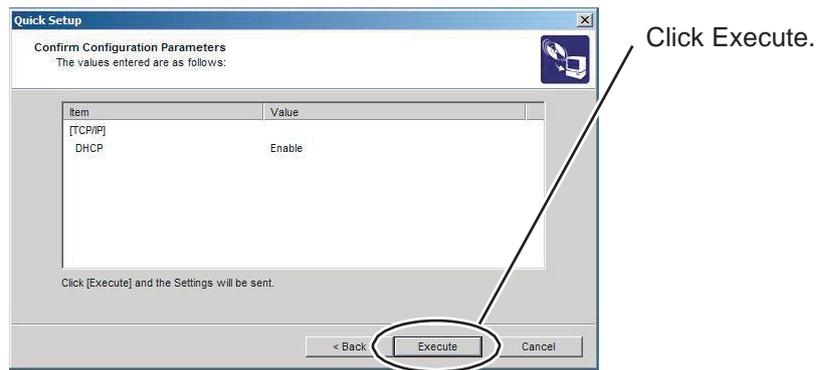
### (B) Manual IP address setting



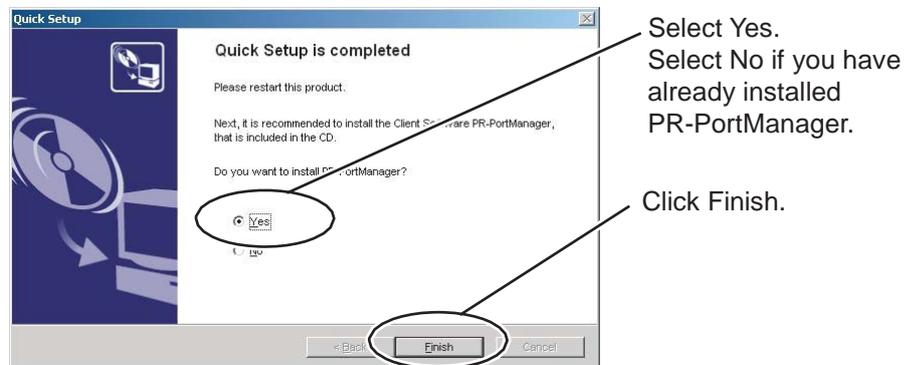
<If your environment does not include a DHCP server>



## 7. Check the settings.



## 8. Setup is complete.



Hint

- Proceed with the installation of PR-PortManager. PR-PortManager is print client software for printing directly from Windows.
- When printing using the standard print client of the operating system in a Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2 environment, see the section entitled "Printing using the standard print client of the operating system" in this chapter.

## Installing PR-PortManager

PR-PortManager, which is a software product provided with the LAN card, enables direct printing from a Windows XP, Windows Server 2003, Windows Vista, Windows Server 2008, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012 or Windows Server 2012 R2 environment using this LAN card via TCP/IP. PR-PortManager includes print client software that supports LPR functions (dedicated for Fujitsu products) and IPP functions, as well as Popup Status Monitor. On completion of its installation, PR-PortManager starts the Add Printer Port wizard.

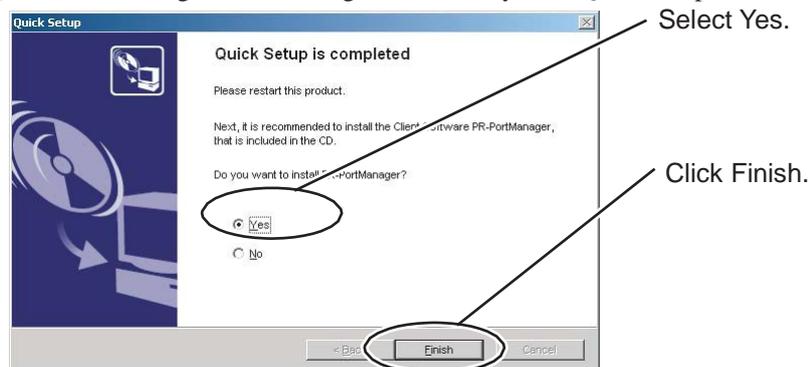


Hint

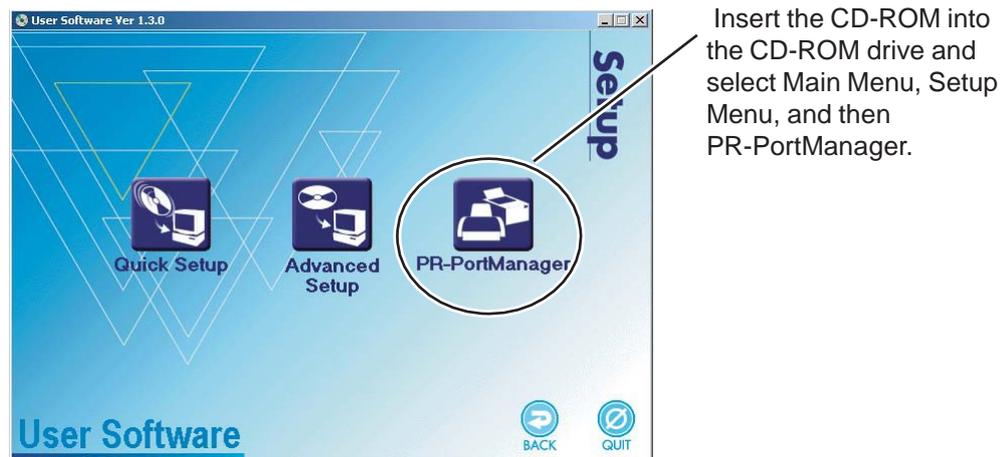
- LPR (Linter Printer Remote) functions  
Using these functions enables you to print on a printer that is connected to a local area network (LAN). LPR is a widely used protocol.
- IPP (Internet Printing Protocol) functions  
Using these functions enables you to print through any remote printer via the Internet.
- Popup Status Monitor  
This monitor is convenient in that it will pop up on a PC screen and display the current printer status. For details, see Chapter 5, "POPUP STATUS MONITOR."

### 1. Confirm the installation method.

(A) When installing PR-PortManager immediately after Quick Setup:



(B) When installing PR-PortManager only:



Caution

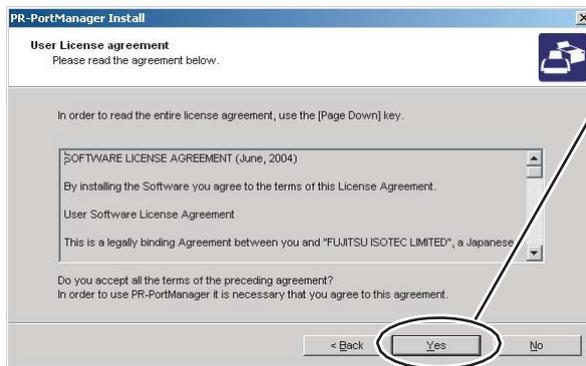
- If Windows Vista/Server 2008 is used and the User Account Control window appears, select Allow.
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.

2. The Install PR-PortManager wizard starts.



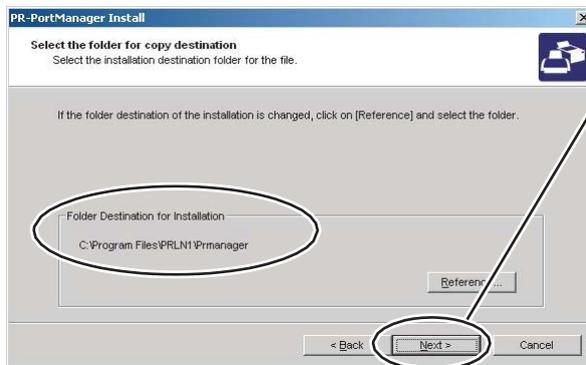
Click Next.

3. Check the software license agreement.



Click Yes.

4. Specify the installation folder.



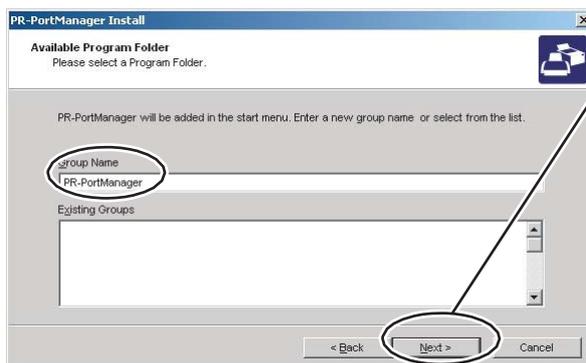
Click Yes.



Hint

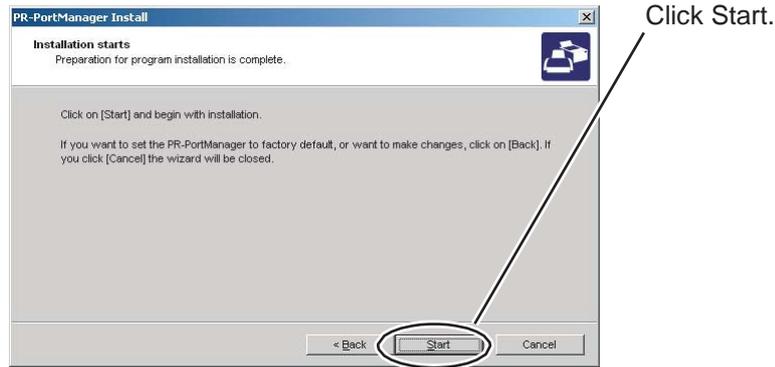
Click Browse to select the installation folder.

5. Enter the group name to be displayed in the Start menu.



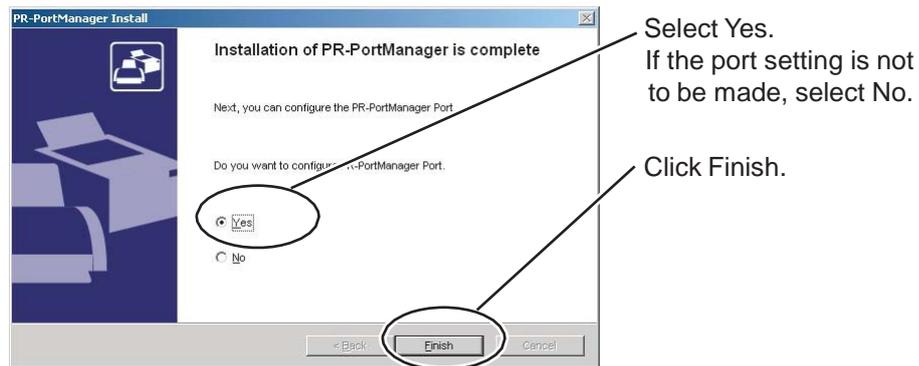
Click Next.

## 6. Start installation.



In an Windows XP (with SP2 or later), Vista, 7,8,8.1, 10, Server 2003, or Server 2008/2008 R2/2012/2012 R2 environment, the following message appears. Click Yes.  
“When using this application, it needs to be added to the exceptions list of the Windows firewall.  
Do you want to add this application to the exceptions list?”

## 7. Installation is completed.

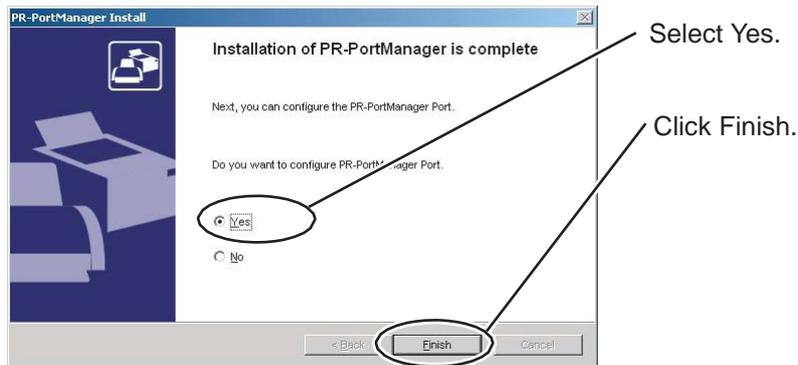


## Adding a print port

The LAN card allows you to select one of two port creation methods: LPR print port and IPP print port. Select the protocol you want to use for printing and click Next. The pertinent port creation window opens.

(A)

1. Adding a print port immediately after PR-PortManager installation:



2. The Add PR-PortManager Port wizard starts.



(B)

- Select Start, Programs(\*1), PR-PortManager, and then Add PR-PortManager Port.



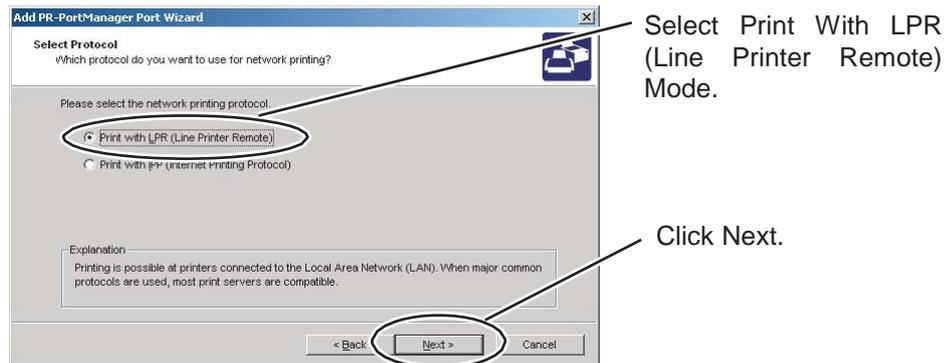
Caution

- If Windows Vista/Server 2008 is used and the User Account Control window appears, select Allow.
- In the Windows Vista/7/2008 R2 operating system, Start is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.

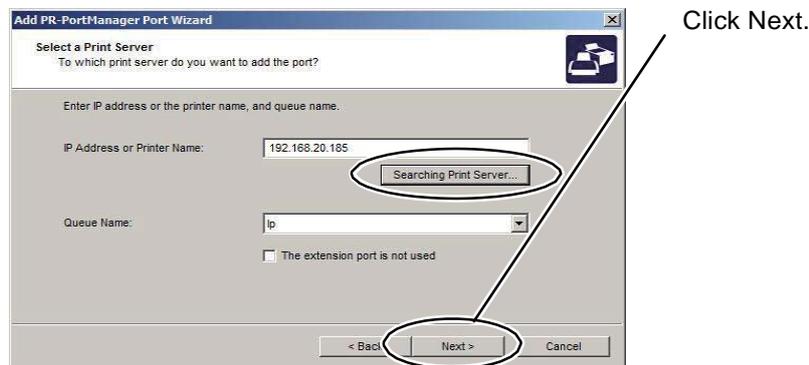
- If the operating system is Windows 8/Windows Server 2012, please bring a mouse to a screen left corner, left-click it, and select start screen and Add PR-PortManager port.
  - If the operating system is Windows 8.1/Windows Server 2012 R2, Please left-click the Windows logo at the lower left of a screen, after displaying the Start screen, click the lower arrow  which moves a mouse under a screen and is displayed, display a Apps view screen, and select Add PR-PortManager port.
- \*1 If the operating system is Windows 10, it becomes "All apps".

## Adding a PR-PortManager LPR port:

1. Select LPR (Line Printer Remote).



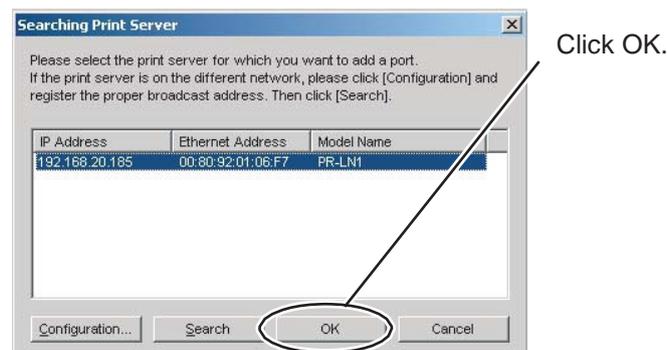
2. Click the Search Print Server button to display a list of print servers in the network and select this LAN card. Select "lp" as the queue name.



Hint

You can select this LAN card by directly entering its IP address.

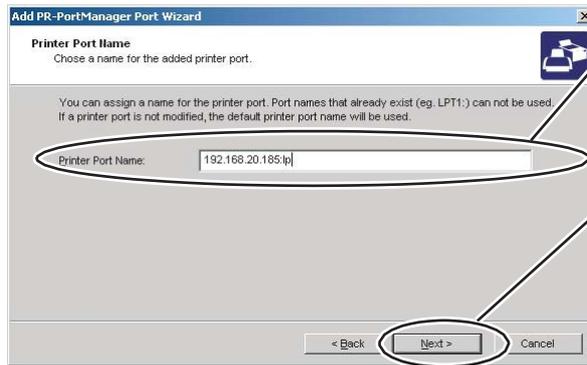
3. Select the port and click OK.



Hint

- Check the Ethernet address written on the label attached to the LAN card.
- Use AdminManager to identify the IP address of the printer.

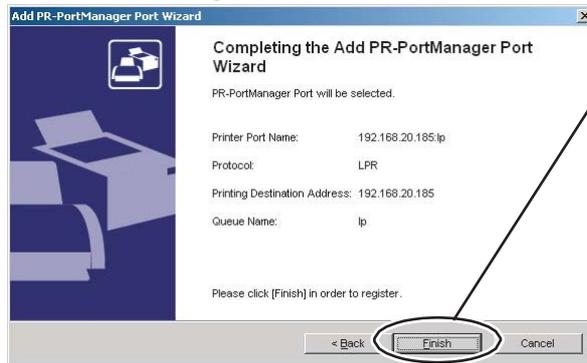
4. Enter the printer port name.



When not specifying a name, use the default printer port name.

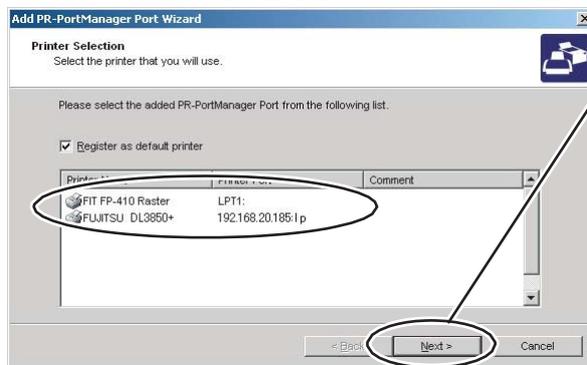
Click Next.

5. Check the settings.



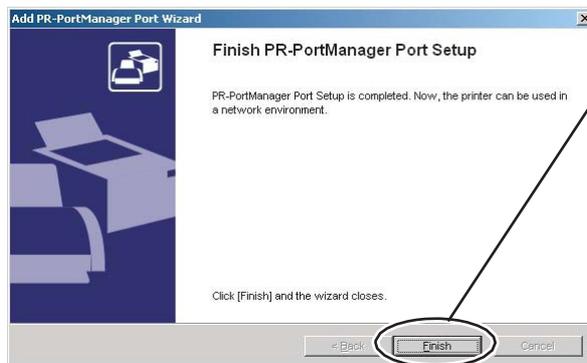
Click Finish.

6. Select the printer from the list.



Click Next.

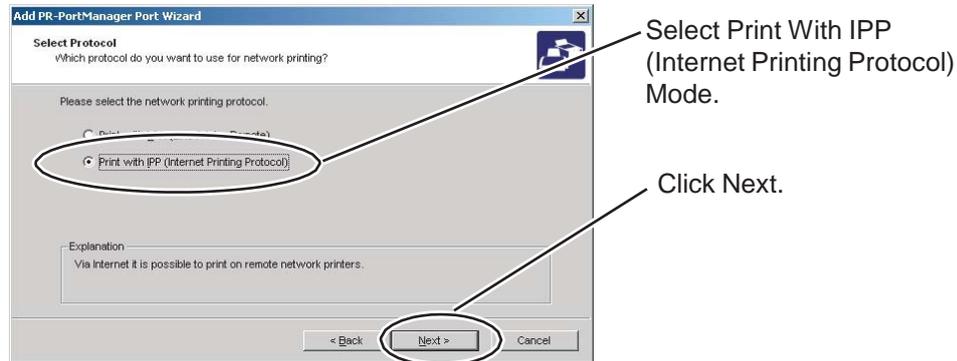
7. Exit from port setup.



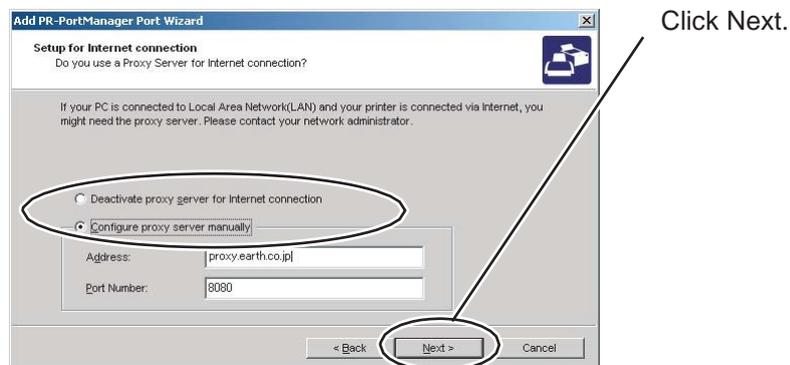
Click Finish.

## Adding a PR-PortManager IPP port:

### 1. Select IPP (Internet Printing Protocol).



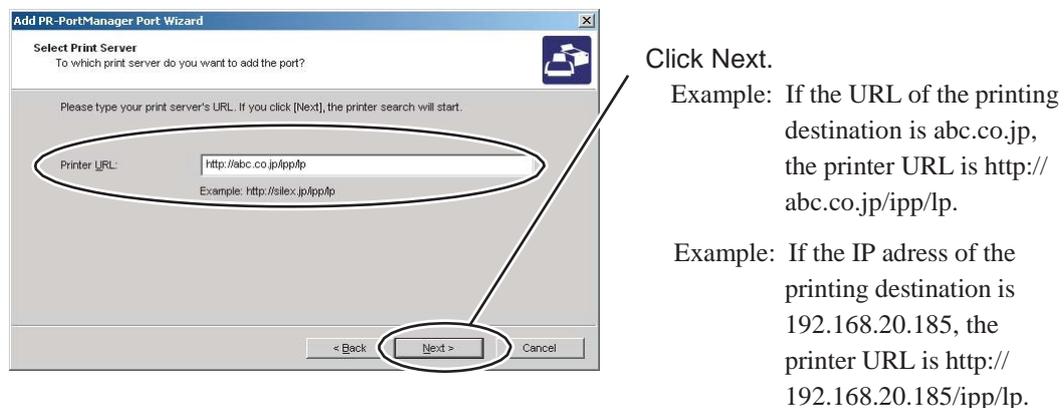
### 2. Select Deactivate proxy server for Internet connection or Configure proxy server manually.



Hint

- If your network does not use a proxy, select Deactivate proxy server for Internet connection.
- To use a proxy server that is different from the proxy server used by Internet Explorer, select Configure proxy server manually

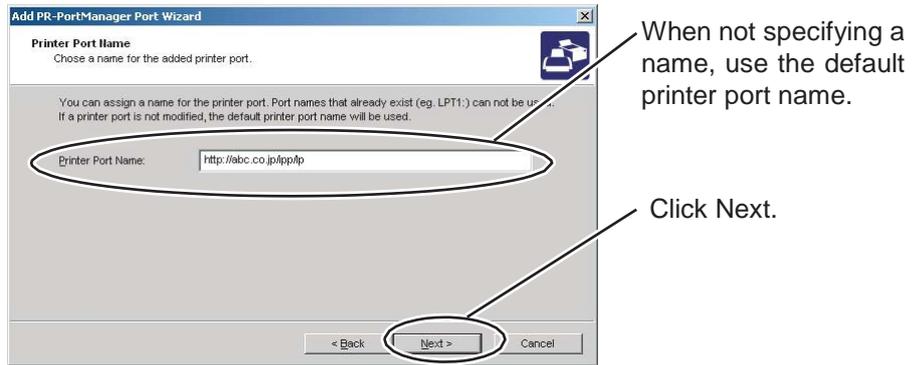
### 3. In the Printer URL field, enter the URL assigned to the LAN card connected to the printer you want to use for printing. The IPP printer URL for this LAN card is /ipp or /ipp/lp.



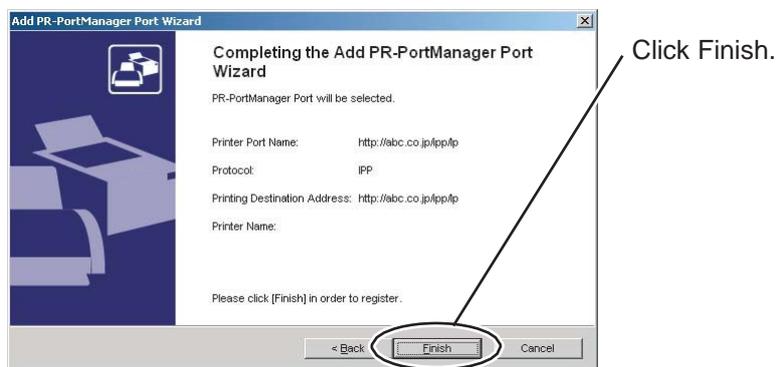
Hint

Click Next to activate a check to see whether the specified URL exists.

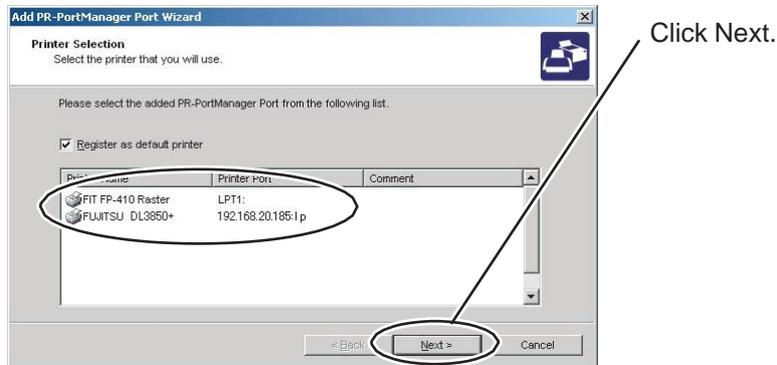
4. Specify a print port name.



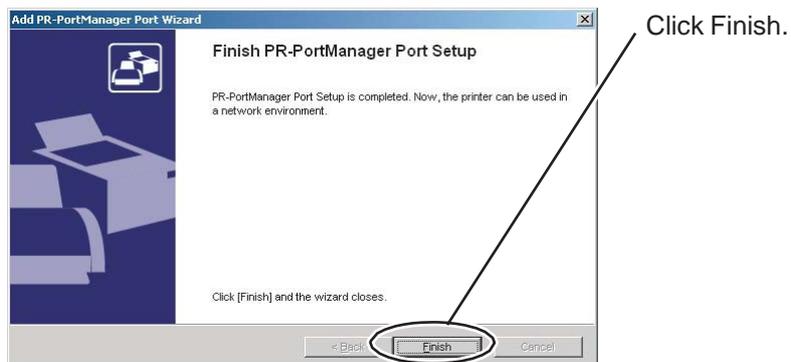
5. Check the settings.



6. Select the printer from the list.



7. Exit from port setup.



# Configuring the printer driver

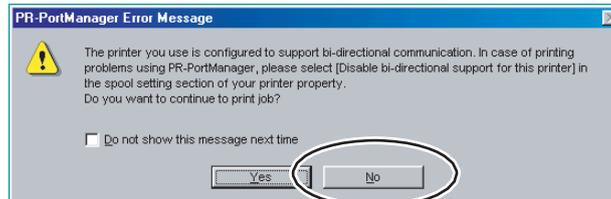
The printer driver configuration method is explained below.

Example: If the operating system is Windows XP Professional:

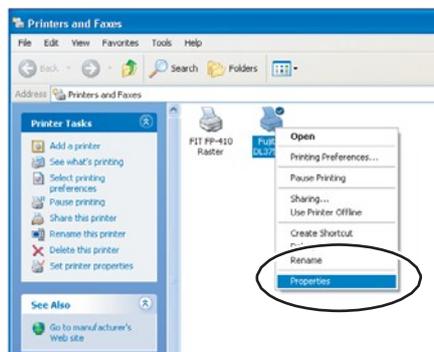


Hint

- If the printer driver is not configured, the following error notice dialog box may appear. Select No and configure the printer driver by using the following procedure:
- If printing is unsuccessful after printer driver configuration, reboot the PC.



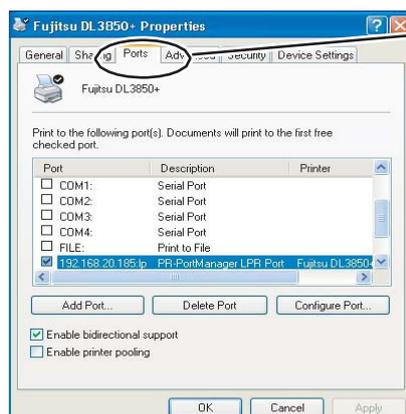
1. Select Start, and then Printers And Faxes to display the properties of your printer.



Hint

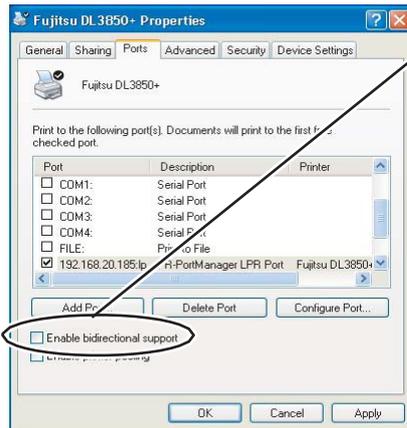
- If the operating system is Windows XP Home Edition, select Start, Control Panel, Printers And Other Hardware, and then Printers And Faxes.
- If the operating system is Windows Vista/Server 2008, select Start (\*1), Control Panel, and Printer or Printers.
  - \*1 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows 7 or Windows Server 2008 R2, select Start(\*2), Devices and Printers to display the Printer properties of your printer.
  - \*2 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows 8 or Windows Server 2012, open Printer Properties of the printer that takes the mouse to the screen lower left corner, right-clicks, opens Control panel , View devices and printers.
- If the operating system is Windows 8.1/10/Windows Server 2012 R2, Please right-click the Windows logo at the lower left of a screen, and open Printer properties of the printer which opens and uses View devices and printers of Control Panel.

2. Select the Ports tab.



Select Ports.

### 3. Set up bidirectional communication.

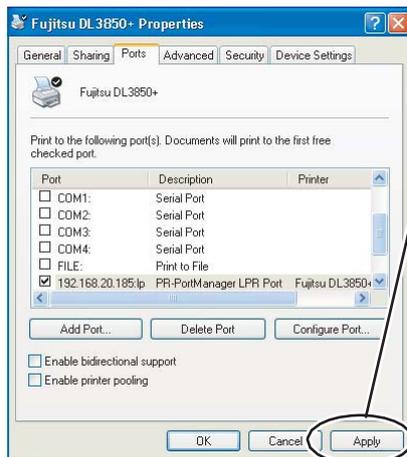


Uncheck Enable bidirectional support.



If the operating system is Windows Vista/Server 2008, this setting may be disabled depending on the environment. If so, select Run as administrator and Properties in the used printer. If the User Account Control window appears, select Continue.

### 4. Apply the settings.



Click Apply.

## Printer port settings

### LPR port

For a printer for which the LPR port has been configured with PR-PortManager, you can configure the LPR port by clicking Configure Port in the Properties widow.

#### General Tab

Item	Description	Default
IP address or printer name	Enter the printer IP address or printer name (up to 64 one-byte characters).	None
Queue name	Select a print queue.	None
Timeout	Specify a communication time-out value for data transmission/reception. The specified value must be in a range from 60 to 3600 seconds.	900
The extension port is not used	Extended ports (port No. 1024 and subsequent ports) are not used. Select this check box to limit the number of ports used to 11 (No. 721 to No. 731).	Use
About	Version information is displayed.	None

### IPP port

For a printer for which the IPP port has been configured with PR-PortManager, you can configure the IPP port by clicking Configure Port in the Properties window.

#### General Tab

Item	Description	Default
Printer URL	Enter the printer URL (up to 256 one-byte characters).	None
Timeout	Specify a communication time-out value for data transmission/reception. The specified value must be in a range from 60 to 3600 seconds.	180
Deactivate proxy server for Internet connection.	No proxy server is used for Internet connection.	None
Configure proxy server manually	A manually configured proxy server is used for Internet connection. Select this item to enter a proxy server address and port number. You can use up to 256 one-byte characters for the address.	None
About	Version information is displayed.	None

## Advanced Tab

Item	Description	Default
User authentication	Not supported.	None
Language	Select IPP Attributes, and then Natural Language Attributes. The IPP port is initially set up corresponding to the language of the Windows locale being used. If you select a language that is not included in the list, English (U.S.) is assumed..	None
Advanced settings		
Activate Chunked Encoding.	Chunked Encoding is used for data transmission. In order to use this feature, the server you want to communicate with needs to support the feature. If Chunk Encoding is not supported, the printer may print distorted characters or reject access requests from the proxy server.	Do not use
Maximum Size of chunk.	Specify the maximum chunk size. The specified value must range from 1024 to 16384 characters.	4096

# PRINTING USING THE STANDARD PRINT CLIENT OF THE OPERATING SYSTEM

This section explains the printing method using the standard print client feature of the operating system, rather than PR-PortManager.

## Printing using the Windows XP/Vista/7/8/8.1/10/Windows Server 2003/2008/2008 R2/2012/2012 R2 standard TCP/IP port



Caution

- The explanation that follows assumes that Windows XP Professional is being used. If you are using Windows XP Home Edition, Windows Server 2003, Windows Vista, or Windows Server 2008, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 the contents of the screenshots appearing in this manual may differ from those displayed during actual operation.
- Install the printer driver on your PC beforehand.
- Popup Status Monitor is unavailable during use of the standard print client of the operating system.

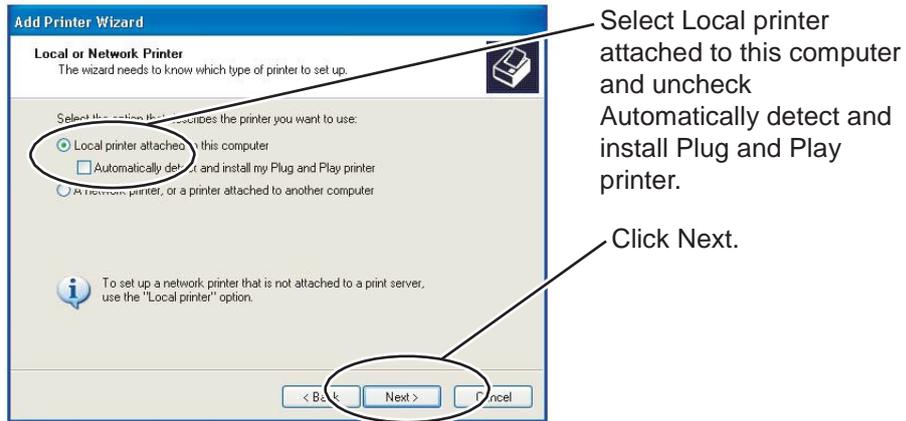
### 1. Select Start, and then Printers And Faxes. Then Click Install Printer.



Hint

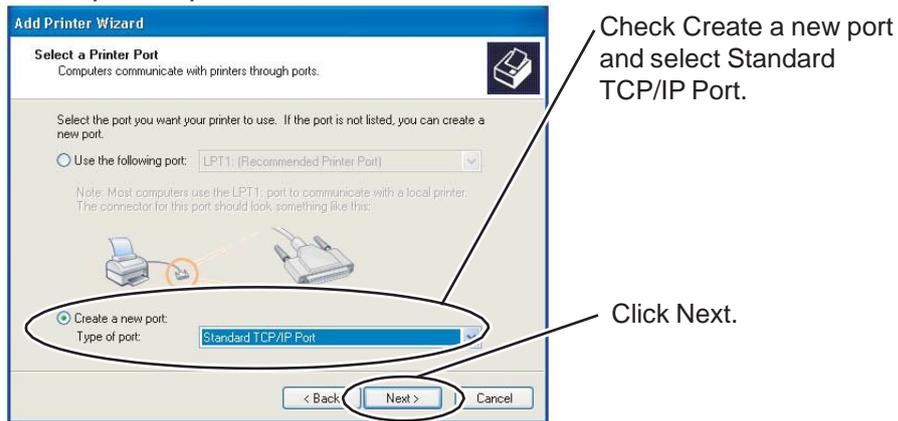
- If the operating system is Windows XP Home Edition, select Start, Control Panel, Printers And Other Hardware, and then Printers And Faxes. Then click Install Printer.
- If the operating system is Windows Server 2003, select Start and then Printers And Faxes. Then click Add Printer.
- If the operating system is Windows Vista, select Start (\*1), Control Panel, and then Printers. Then click Add a printer.  
\*1 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows Server 2008, select Start, Control Panel, Printer or Printers, and Add Printer, and then select Run as administrator. If the User Account Control window appears, select Continue. If Run as administrator does not appear after right-clicking Add Printer, select Add Printer.
- If the operating system is Windows 7 or Windows Server 2008 R2, select Start(\*2), Devices and Printers. Then click Add a printers.  
\*2 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows 8 or Windows Server 2012, take the mouse to the screen lower left corner, right-click, and click Control panel, View devices and printers, Add a printer.
- If the operating system is Windows 8.1/10/Windows Server 2012 R2, Please right-click the Windows logo at the lower left of a screen, and click Add a printer of View devices and printers of Control Panel.

## 2. Select the type of the printer you are setting up.

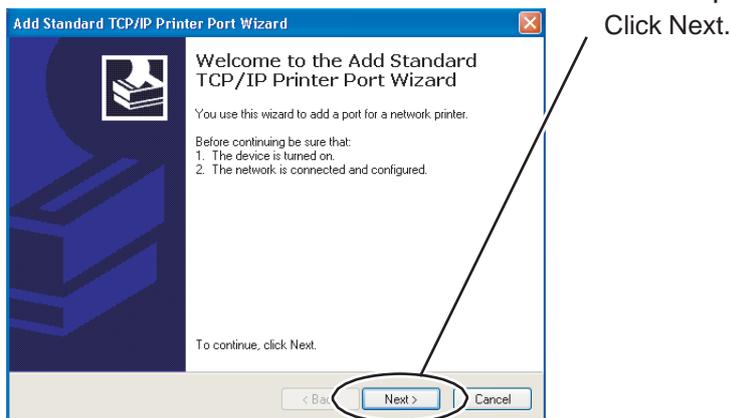


- If the operating system is Windows Vista/7/Server 2008/2008 R2, select Add a Local Printer.
- If the operating system is Windows 8/8.1/10/Server 2012/2012 R2, select The printer that I want isn't listed on Add a printer screen, select Add a local printer or network printer with manual settings, and click Next.

## 3. Select a printer port.

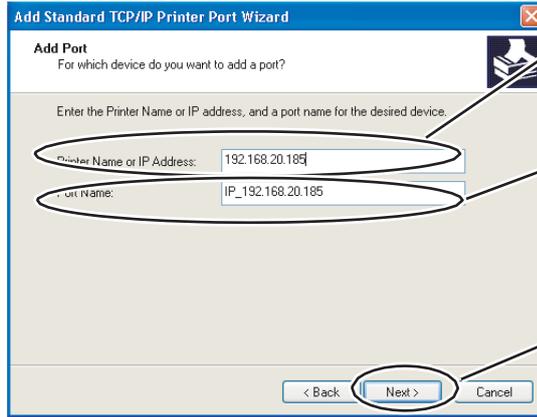


## 4. The Add Standard TCP/IP Printer Port Wizard starts up.



If the operating system is Windows Vista/7/8/8.1/10/Server 2008/2008 R2/2012/2012 R2, the windows in steps 4 and 8 are not displayed.

## 5. Add a printer port.



Enter the IP address assigned to the LAN card.

If there is no printer port name you wish to use, use the default name (IP\_XXX.XXX.XXX.XXX).

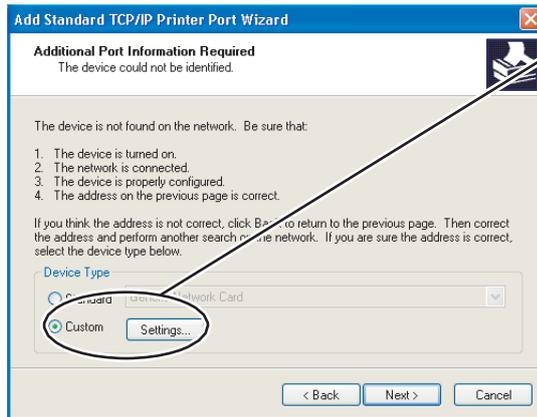
Click Next.



Caution

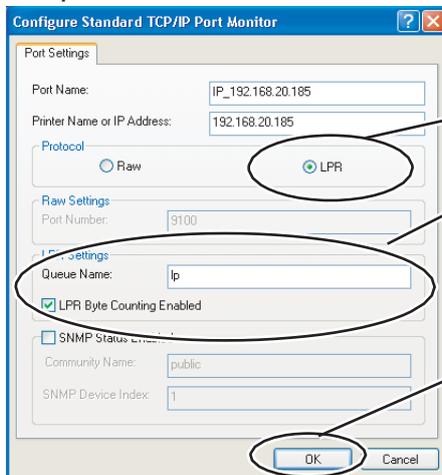
- If the operating system is Windows Vista/7/8/8.1/10/Server 2008/2008 R2/2012/2012 R2, specify the IP address defined for this product in Host Name or IP Address. If you use the default port name, "IP\_" is not attached to the IP address. Select Auto Detect for Device Type, and check the "Query the printer and automatically select the printer driver to use" check box.
- If the operating system is Windows 8/8.1/10 or Windows Server 2012/2012 R2, Device type becomes TCP/IP device set.

## 6. Identify the device type.



Check Custom and then click Settings.

## 7. Enter port information



Check LPR.

Enter lp as the queue name and then check LPR Byte Counting Enabled.

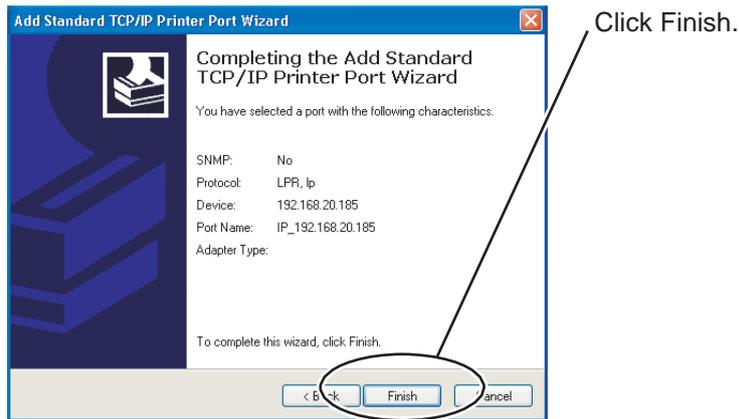
Click OK.



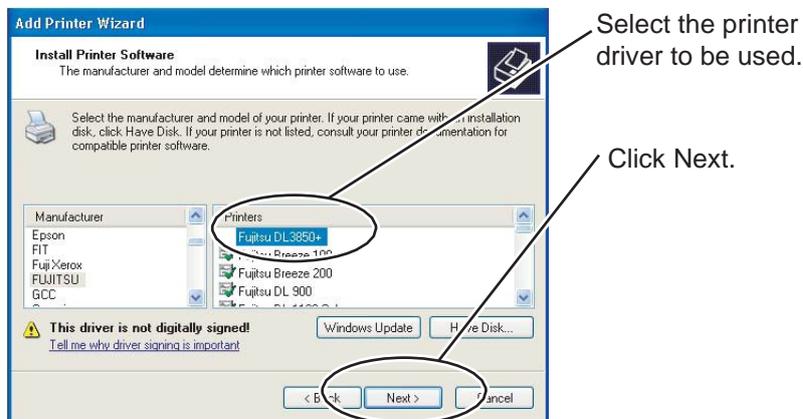
Hint

Click OK. The window in step 6 will be redisplayed. Click Next.

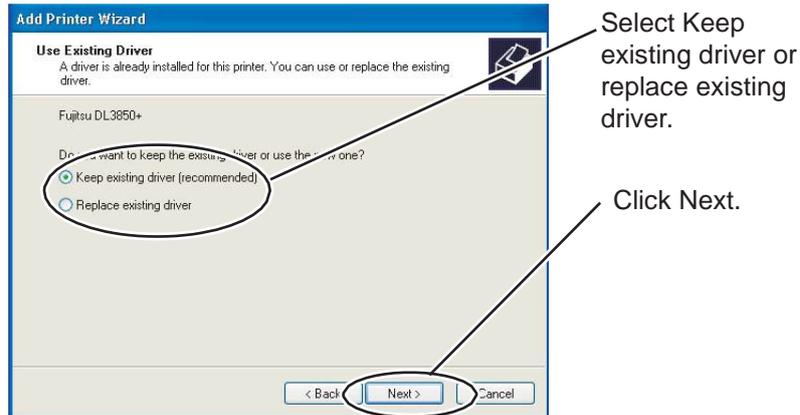
8. Confirm your settings.



9. Select the printer driver.



10. Verify the printer driver.



Hint

- If you have installed the latest driver, select Replace existing driver.
- Depending on Windows OS to be used, a choice serves as the following displays.
  - Use the driver that is currently installed (recommended)
  - Replace the current driver

## 11. Register the printer name.

Enter the printer name.

Specify whether to use the printer as the default printer.

Click Next.



Caution

- If the operating system is Windows Vista/7/8/8.1/10, clicking Next displays the window shown at the right. Click Finish.
- The settings are now complete.
- If the operating system is Windows Server 2008/2008 R2/2012/2012 R2, click Next in the step 12 on page 3-26 and the same setting complete window appears.

Click Finish.

Click Finish.

- Refer to 12 when "Printer sharing" set screen is displayed.

## 12. Specify whether to share the printer.

Select Do not share this printer or Share name.

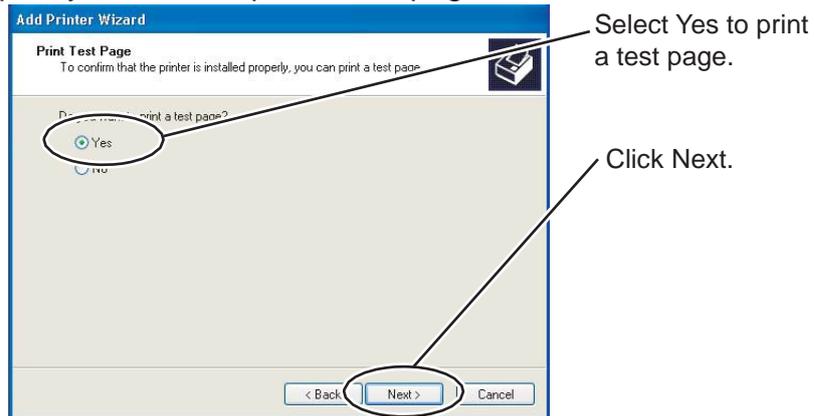
Click Next.



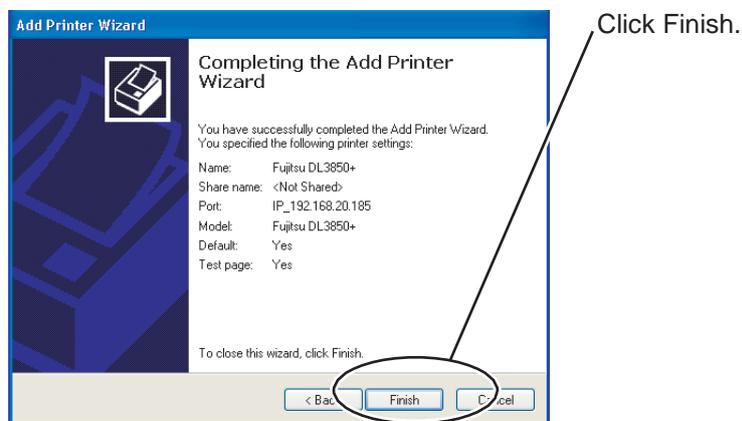
Hint

- To enable the use of this printer from other computers in the same network, select Share name.
- If the operating system is Windows Server 2008/2008 R2/2012/2012 R2, clicking Next displays the window indicating settings are now complete. Click Finish. See the window shown at Caution in step 11 on page 3-26.

13. Specify whether to print a test page.



14. Confirm your settings.



15. If you selected Yes in the step 13, the printing of a normal test page indicates that the setting is complete.

16. In the printer driver port settings, uncheck the "Enable bidirectional support for this printer" check box.

## Printing using the Windows XP/Vista/7/8/8.1/10/Windows Server 2003/2008/2008 R2/2012/2012 R2 LPR port



Caution

- Before you can print using the LPR feature, you need to add an LPR port. Select Start, Control Panel, and Add Or Remove Programs (for Windows 2000, select Start, Settings, Control Panel, and Add Or Remove Programs), and then click Add/Remove Windows Components. The Windows Components Wizard will start. Select Components, Other Network File And Printing Services, Details, and Print Services for Unix, and then Click OK. Windows Components Wizard will start, indicating that the addition of the component is complete. Click Finish. The addition of the LPR port is now complete. If the operating system is Windows Vista, you need to add the LPR port monitor. Select Start, Control Panel, Programs, and Turn Windows Features on or off. When the User Account Control window is displayed, select Continue. In the Windows features window, select Print Services and LPR Port Monitor, and then click OK. The addition of the LPR port monitor is now complete.

If the operating system is Windows 7, you need to add the LPR Port Monitor. Select Start, Control Panel, and Programs and Turn Windows Features on or off. If the User Account Control window appears, select Yes. In the Windows features window, select Print and Document Services and the LPR Port Monitor, and then click OK. The addition of the LPR Port Monitor is now complete.

If the operating system is Windows Server 2008/2008 R2, you need to add the LPR Port Monitor. Select Start, Control Panel, and Programs and Features. Alternatively, select Start, Control Panel, Programs, and Turn Windows Features on or off.

If the User Account Control window appears, select Continue. If the operating system is Windows Server 2008 R2, select Yes. In the Server Manager window, select Features Summary and Add Features, check the LPR Port Monitor, and then click Next. When Installation succeeded is displayed for Confirm Installation Results, select Close. The addition of the LPR Port Monitor is now complete.

If the operating system is Windows 8, you need to add the LPR Port Monitor.

The mouse is taken to the screen lower left corner, it right-clicks, and select Control Panel(\*1), and Programs and Turn Windows features on or off.

If the User Account Control window appears, select Yes. In the Windows Features window, select Print and Document Services and the LPR Port Monitor, and then click OK. The addition of the LPR Port Monitor is now complete.

\*1 If the operating system is Windows 8.1/10, the Windows logo at the lower left of a screen is right-clicked, and it select Control panel.

If the operating system is Windows Server 2012, you need to add the LPR Port Monitor.

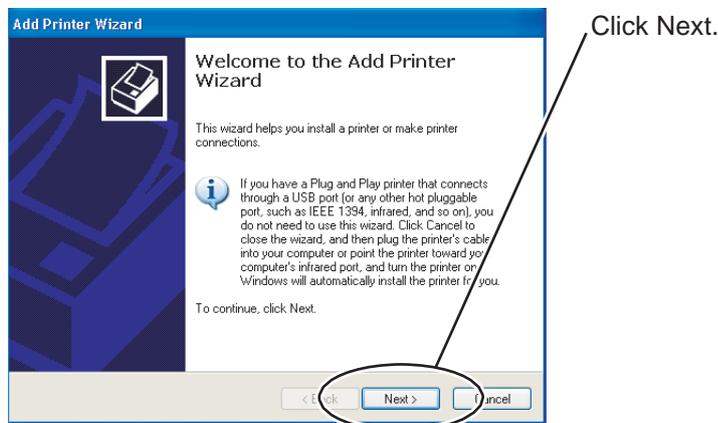
The mouse is taken to the screen lower left corner, it right-clicks, and select Control Panel(\*2), and Programs and Features. Alternatively, select Start, Control Panel, Programs, and Turn Windows Features on or off.

If the User Account Control window appears, select Yes. In the Add Roles and Features Wizard window, select Server Selection and Features, check the LPR Port Monitor, and then click Next. When Installation succeeded is displayed for Confirm Installation Results, select Close. The addition of the LPR Port Monitor is now complete.

\*2 If the operating system is Windows Server 2012 R2, the Windows logo at the lower left of a screen is right-clicked, and it select Control panel.

- The following description is the screen of Windows XP Professional as an example. If the operating system is Windows 2000, Windows XP Home Edition, Windows Server 2003, Windows Vista, Windows Server 2008, Windows 7, Windows Server 2008 R2, Windows 8, Windows Server 2012, Windows 8.1, Windows 10, or Windows Server 2012 R2, the display message is different from it.
- Install the printer driver on your PC beforehand.
- Popup Status Monitor is unavailable during use of the standard print client of the operating system.

1. Select Start and Printers And Faxes, and then Install Printer.

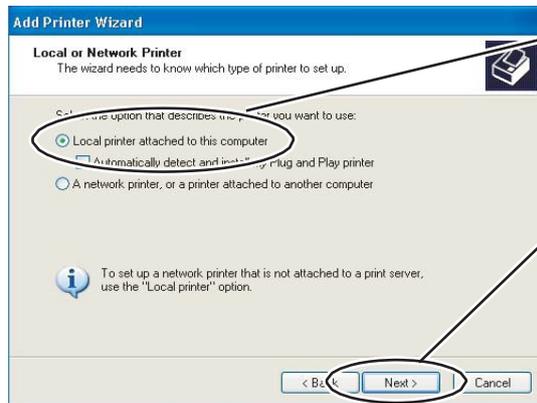




Hint

- If the operating system is Windows XP Home Edition, select Start, Control Panel, Printer and Other Hardware, and then Printers And Faxes. Then click Install Printer.
- If the operating system is Windows Server 2003, select Start and Printers And Faxes, and then click Add A Printer.
- If the operating system is Windows Vista, select Start (\*1), Control Panel, and then Printers. Then click Add a printer.
  - \*1 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows Server 2008, select Start, Control Panel, Printer or Printers, and Add Printer, and then select Run as administrator. If the User Account Control window appears, select Continue. If Run as administrator does not appear after right-clicking Add Printer, select Add Printer.
- If the operating system is Windows 7 or Windows Server 2008 R2, select Start(\*2), Devices and Printers. Then click Add a printers.
  - \*2 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows 8 or Windows Server 2012, take the mouse to the screen lower left corner, right-click, and click Control panel, View devices and printers, Add a printer..
- If the operating system is Windows 8.1/10/Windows Server 2012 R2, Please right-click the Windows logo at the lower left of a screen, and click Add a printer of View devices and printers of Control Panel.

## 2. Select the type of the printer to be set.



Select Local printer attached to this computer and uncheck Automatically detect and install Plug and Play printer.

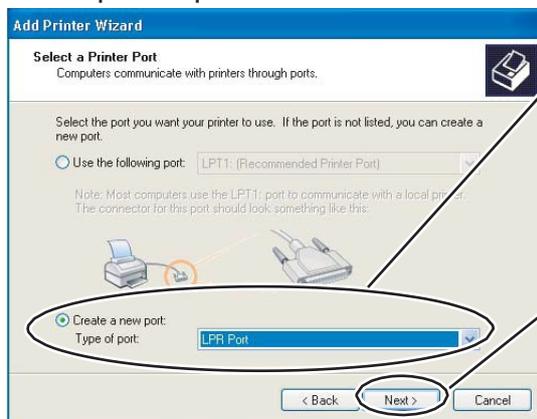
Click Next.



Hint

- If the operating system is Windows Vista/7/Server 2008/2008 R2, select Add a Local Printer.
- If the operating system is Windows 8/8.1/10 or Windows Server 2012/2012 R2, select The printer that I want isn't listed on Add a printer screen, select Add a local printer or network printer with manual settings, and click Next

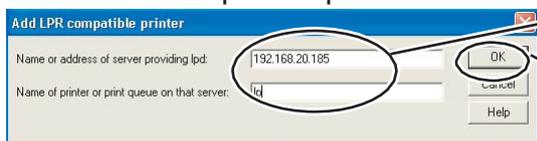
## 3. Select a printer port.



Check Create a new port and select LPR Port as the port type.

Click Next.

## 4. Add an LPR-compatible printer.



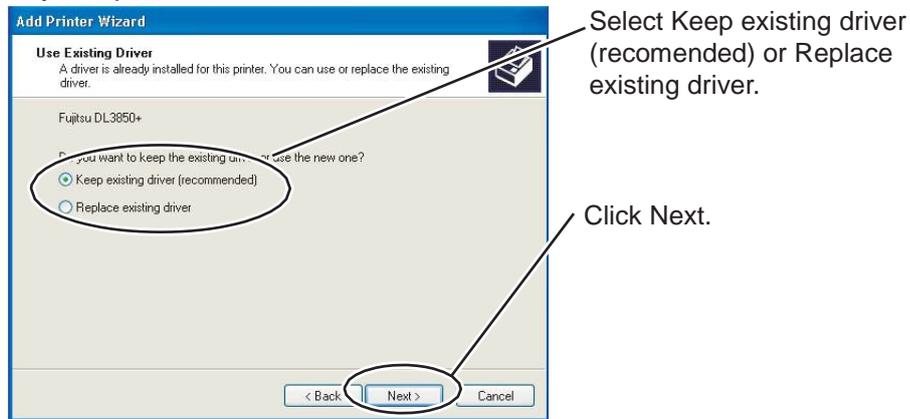
Enter the IP address assigned to this LAN card, as well as lp.

Click OK.

## 5. Select the printer driver



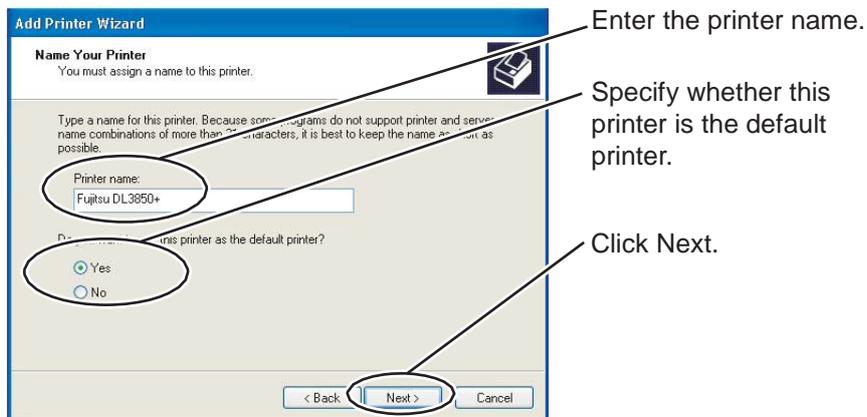
## 6. Verify the printer driver.



Hint

- If you have installed the latest driver, select replace existing driver.
- Depending on Windows OS to be used, a choice serves as the following displays.  
Use the driver that is currently installed (recommended)  
Replace the current driver

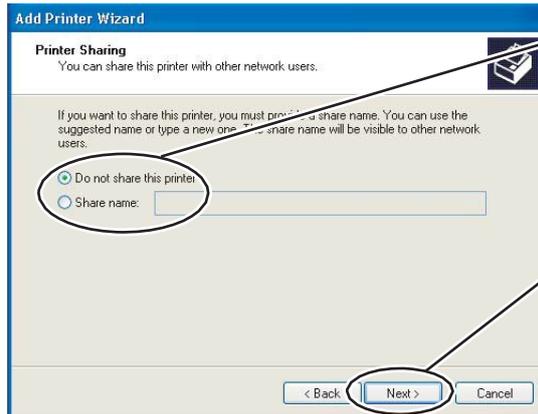
## 7. Register the printer name.



Caution

If the operating system is Windows Vista/7/8/8.1/10, clicking Next displays the window indicating settings are now complete. Click Finish. See the window shown at Caution in step 11 on page 3-26.

## 8. Specify whether to share the printer.



Specify whether the printer is to be shared or not shared.

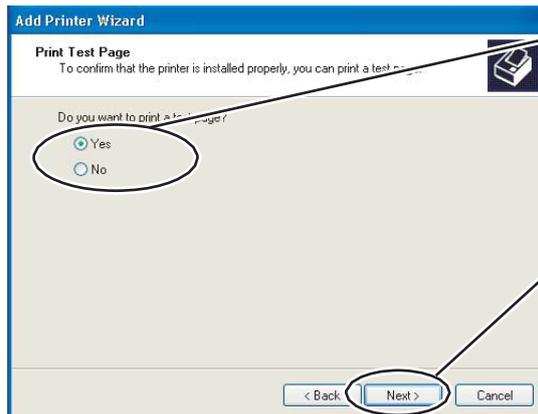
Click Next.



Hint

- To enable the use of this printer from other computers in the same network, select Shared name.
- If the operating system is Windows Server 2008/2008 R2/2012/2012 R2, clicking Next displays the window indicating settings are now complete. Click Finish. See the window shown at Caution in step 11 on page 3-26.

## 9. Specify whether to print a test page.



Select Yes to print a test page.

Click Next.

## 10. Verify your settings.



Click Finish.

11. If you selected Yes in the step 9, the printing of a normal test page indicates that the setup is complete.

12. In the printer driver port settings, uncheck the "Enable bidirectional support for this printer" check box.

# Printing using the Windows XP/Vista/7/8/8.1/10/Windows Server 2003/2008/2008 R2/2012/2012 R2 IPP port



Caution

- When using Windows Server 2008/2008 R2/2012/2012 R2, the Internet Printing Client feature must be installed for printing using the IPP port. Be sure to install the function in advance.
- The explanation that follows assumes that Windows XP Professional is being used. If you are using Windows 2000, Windows XP Home Edition, Windows Server 2003, Windows Vista, or Windows Server 2008, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 the contents of the screenshots appearing in this manual may differ from those displayed during actual operation.
- Install the printer driver on your PC beforehand.
- Popup Status Monitor is unavailable during use of the standard print client of the operating system.

## 1. Select Start and Printers And Faxes, and then Click Install Printer.



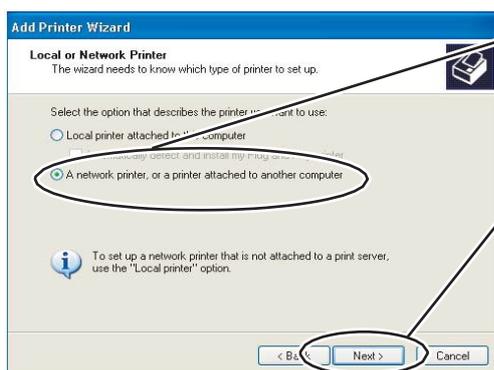
Click Next.



Hint

- If the operating system is Windows XP Home Edition, select Start and Printers And Faxes, and then click Add Printer.
- If the operating system is Windows Server 2003, select Start and Printers And Faxes, and then click Add Printer.
- If the operating system is Windows Vista, select Start (\*1), Control Panel, and then Printers. Then click Add a printer.  
\*1 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows Server 2008, select Start, Control Panel, Printer or Printers, and Add Printer, and then select Run as administrator. If the User Account Control window appears, select Continue. If Run as administrator does not appear after right-clicking Add Printer, select Add Printer.
- If the operating system is Windows 7 or Windows Server 2008 R2, select Start(\*2), Devices and Printers. Then click Add a printers.  
\*2 This is the Windows logo displayed at the bottom left of the screen.
- If the operating system is Windows 8 or Windows Server 2012, take the mouse to the screen lower left corner, right-click, and click Control panel, View devices and printers, Add a printer.
- If the operating system is Windows 8.1/10/Windows Server 2012 R2, Please right-click the Windows logo at the lower left of a screen, and click Add a printer of View devices and printers of Control Panel.

## 2. Select the type of the printer you are setting up.



Select A network printer, or a printer attached to another computer.

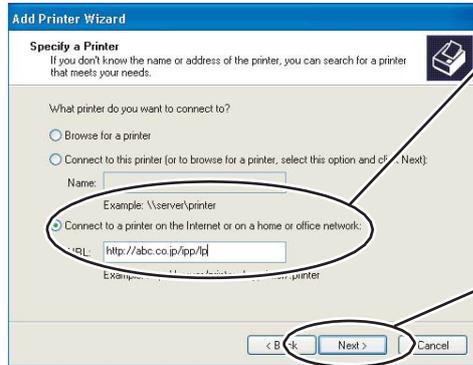
Click Next.



Hint

- If the operating system is Windows Vista/7/Server 2008/2008 R2, select "Add a network, wireless or Bluetooth printer" and select "The printer that I want isn't listed."
- If the operating system is Windows 8/8.1/10/Server 2012/2012 R2, select The printer that I want isn't listed.

### 3. Enter the address of this LAN card.



Select Connect to a printer on the Internet or on a home or office network: , and then specify the URL or IP address of the LAN card.

Click Next.



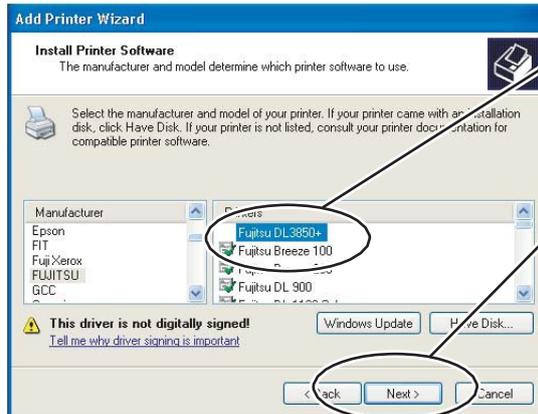
Hint

Example : If the URL is abc.co.jp, specify  
http://abc.co.jp/ipp/lp or http://abc.co.jp/ipp

Example : If the IP address is 192.168.20.185, specify  
http:// 192.168.20.185/ipp/lp or  
http://192.168.20.185/ipp.

- If the operating system is Windows Vista/7/8/8.1/10/Server 2008/2008 R2/2012/2012 R2, select Select a shared printer by name, and specify the URL or IP address of this product.

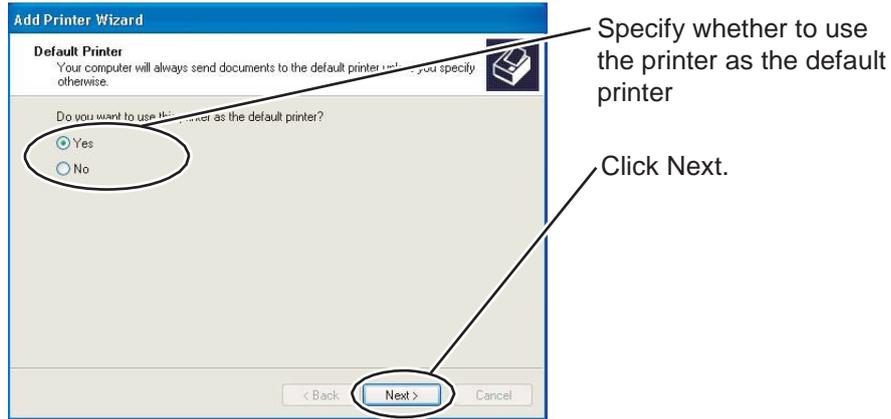
### 4. Select the printer driver.



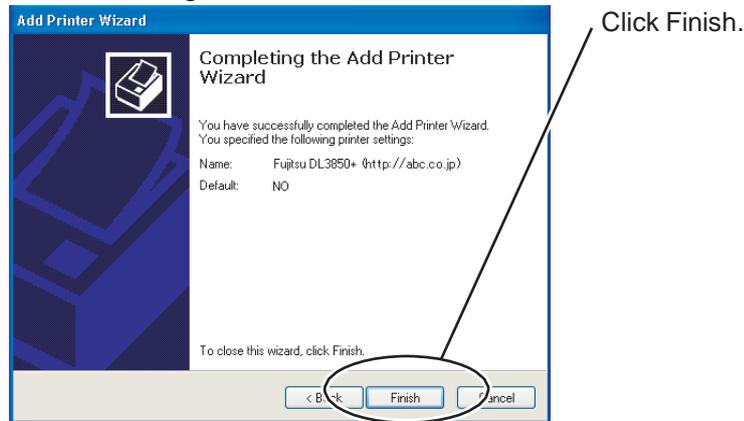
Select the driver for the printer to be used.

Click Next.

5. Specify whether to use the printer as the default printer.

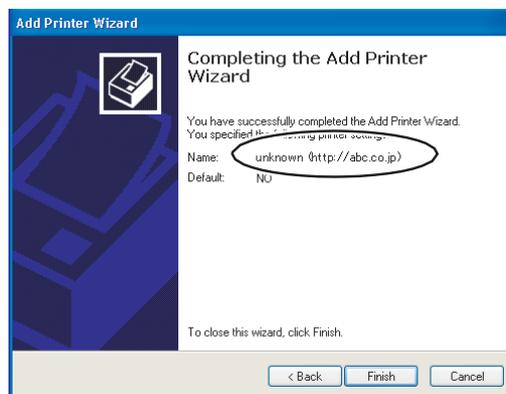


6. Exit from setting.



Caution

- In Windows 2000, the printer name is obtained from the printer driver via the IPP port. In Windows XP/Windows Server 2003/Windows Vista/Windows Server 2008/Windows 7/Windows 8/Windows 8.1/Windows 10/Windows Server 2008 R2/Windows Server 2012/Windows Server 2012 R2, the printer name displayed is the value assigned to the SysName parameter included in the AdminManager print server configuration and the Web browser SNMP configuration. If no value is assigned to SysName, unknown is displayed as the printer name.
- For the window indicating settings are now complete in Windows Vista/Server 2008, see Caution in step 11 on page 3-26.
- In Windows 7/8/8.1/10/Server 2008 R2/2012/2012 R2, when printer name is displayed, click Next. It becomes the setting complete window. For the window indicating settings complete in Windows 7/8/8.1/10/Server 2008 R2/2012/2012 R2, see Caution in step 11 on page 3-26.



7. In the printer driver port settings, uncheck the "Enable bidirectional support for this printer" check box.



Caution

If the standard IPP port of the operating system is used as the print port, printing may not be performed normally. In this event, use the dedicated port (PR-PortManager)

# CHAPTER 4

## CONFIGURATION-RELATED FUNCTIONS

This chapter explains how to make detailed LAN card configuration settings using AdminManager or a Web browser.

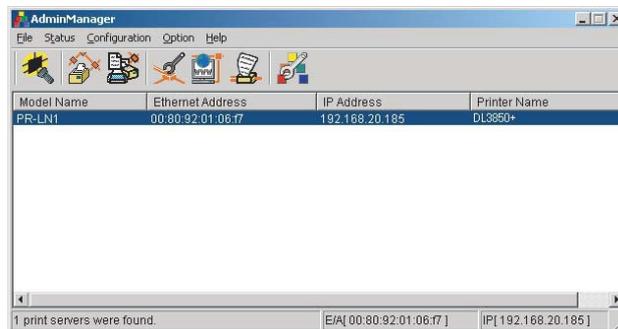
### CONFIGURATION USING ADMINMANAGER

The integrated utility AdminManager enables you to make detailed LAN card configuration settings and change the existing LAN card configuration. This utility also includes convenient functions, such as those for remote restart, self-diagnostic printing, and printer status monitoring.



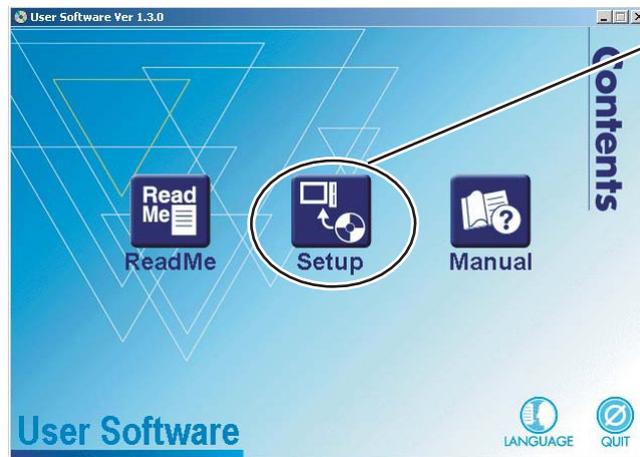
Caution

- Before you can use AdminManager, the TCP/IP protocol must be installed on your PC.
- The AdminManager displays vary with the environment and with the LAN card model.
- If you use the TCP/IP protocol in a Windows XP or Windows Server 2003 environment, select Local Area Connection Properties and Advanced, and then uncheck Protect My Computer And Network By Limiting ...
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.



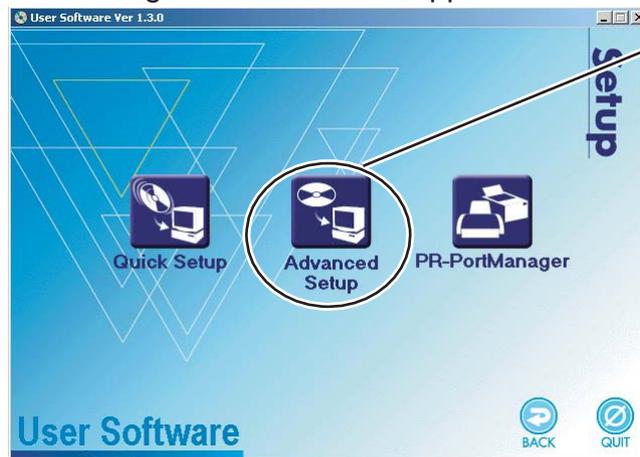
## Starting AdminManager (from the CD-ROM without installing it)

1. Run User Software contained in the CD-ROM supplied with the LAN card.



Click Setup.

2. The following selection window appears:



Click Advanced Setup.



Caution

- If Windows Vista/Server 2008 is used and the User Account Control window appears, select Allow.
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.

3. An installation confirmation window appears.



Select Without installing, direct activation via CD-ROM is possible (this helps no HD space requirement on the PC)

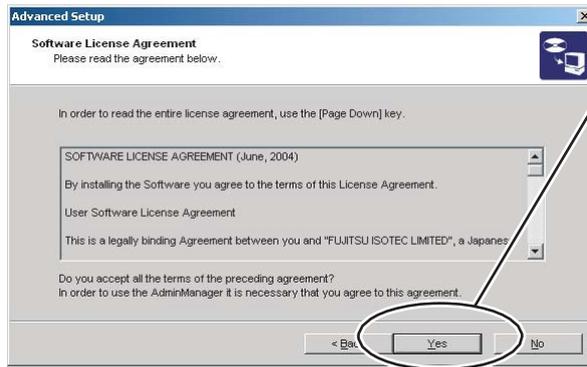
Click Next.



Hint

If you plan to use AdminManager frequently, Fujitsu Isotec recommends installing the software to your PC by selecting Install And Startup AdminManager.

#### 4. Confirm the terms of the software license agreement.



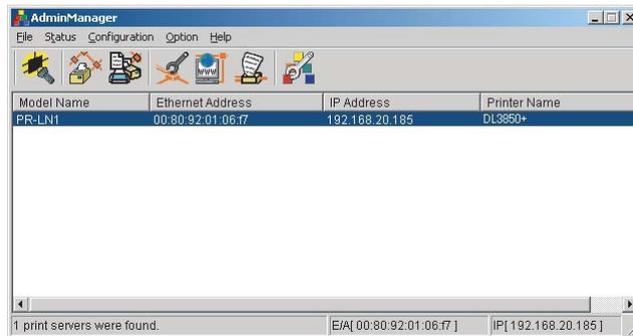
Click Yes to confirm your acceptance of the terms of this agreement.



Caution

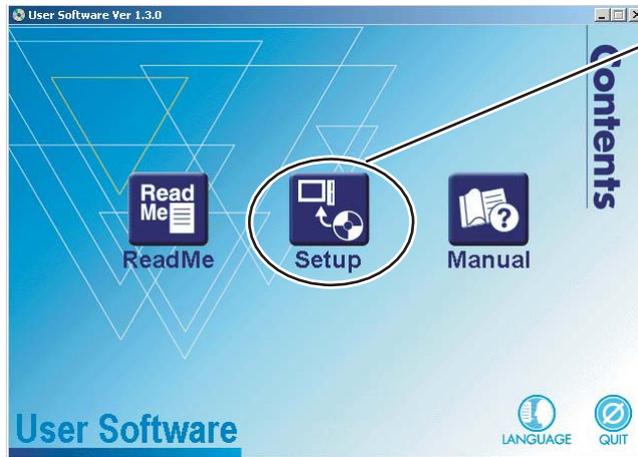
- In an Windows XP (with SP2 or later), Vista, 7,8,8.1,10, Server 2003, or Server 2008/2008 R2/2012/2012 R2 environment, the following message appears. Click Yes.  
"When using this application, it needs to be added to the exceptions list of the Windows firewall. Do you want to add this application to the exceptions list?"

#### 5. AdminManager starts.



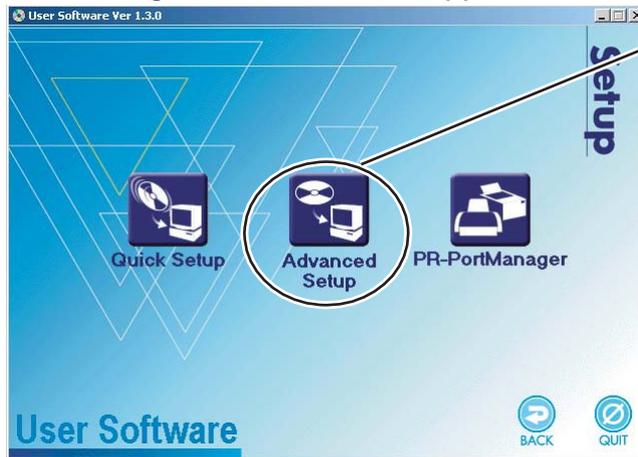
# Installing AdminManager (and using it)

1. Run User Software contained in the CD-ROM supplied with the LAN card.



Click Setup.

2. The following selection window appears:



Click Advanced Setup.



Caution

- If Windows Vista/Server 2008 is used and the User Account Control window appears, select Allow.
- If the operating system is Windows 7/8/8.1/10 or Windows Server 2008 R2/2012/2012 R2, and the User Account Control window appears, click Yes.

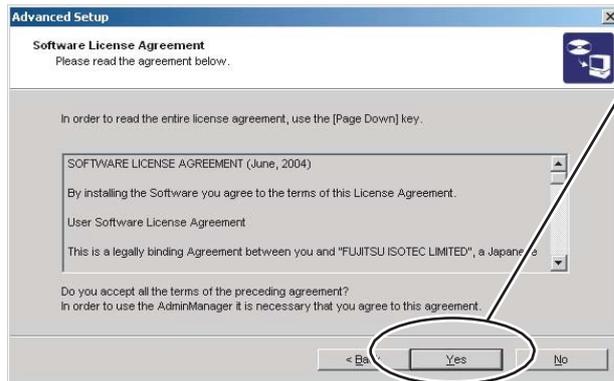
3. An installation confirmation window appears.



Select Installing AdminManager in your PC (It is recommended if you frequently use it)

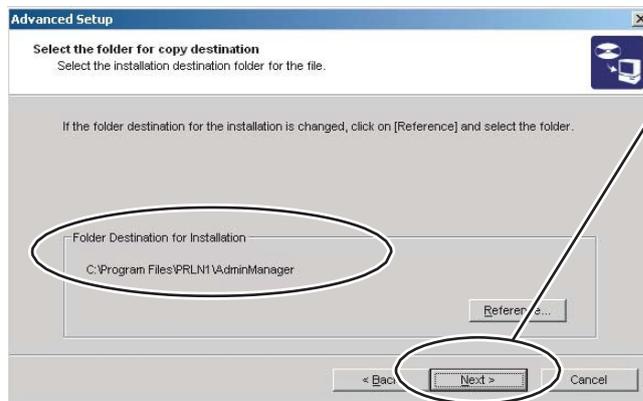
Click Next

4. Confirm the terms of the software license agreement.



Click Yes to confirm your acceptance of the terms of this agreement.

5. Specify the installation folder.



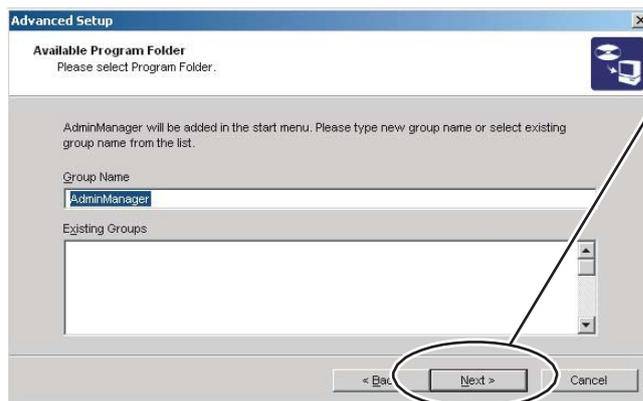
Click Next



Hint

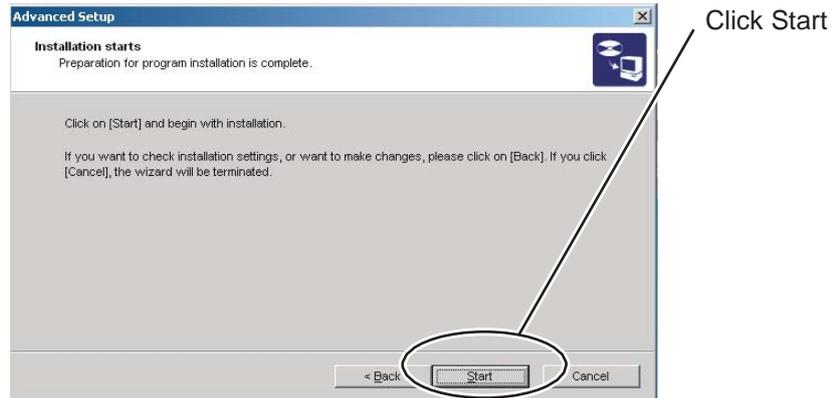
Click Reference to select the installation folder.

6. Enter the group name to be displayed on the start menu.

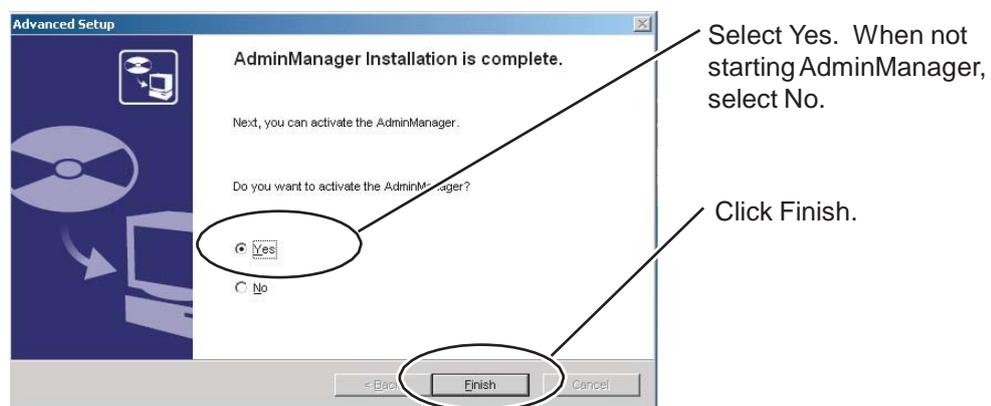


Click Next

## 7. Start installation.



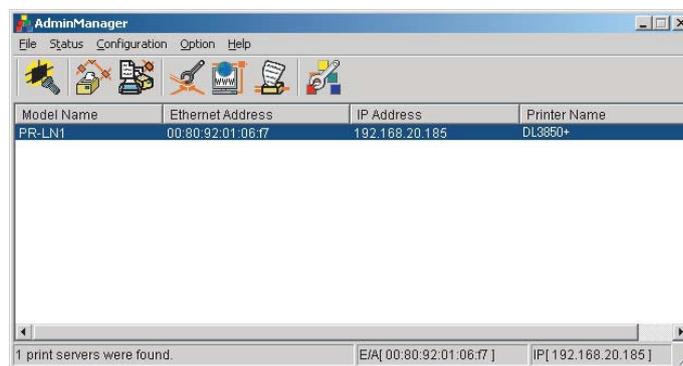
## 8. Installation is complete.



Caution

- In an Windows XP (with SP2 or later), Vista, 7,8,8.1,10, Server 2003, or Server 2008/2008 R2/2012/2012 R2 environment, the following message appears. Click Yes.  
"When using this application, it needs to be added to the exceptions list of the Windows firewall. Do you want to add this application to the exceptions list?"

## 9. AdminManager starts.



# Using AdminManager to search for the LAN card

Before configuring the LAN card, confirm that AdminManager can detect the LAN card. If AdminManager cannot, specify the IP address by selecting Settings and Assign IP address.

## Assigning the IP address

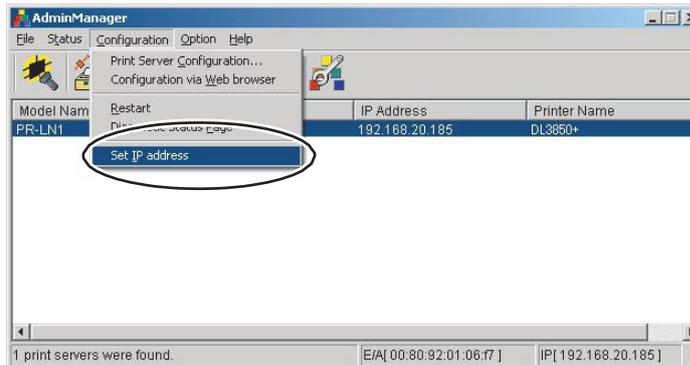
Assign the IP address manually.



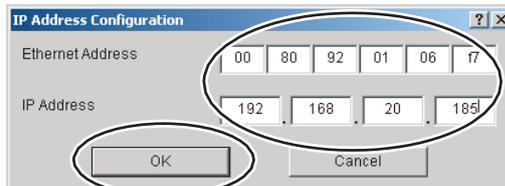
Hint

- Before setting the IP address, verify the Ethernet address assigned to the LAN card. You can read the Ethernet address on the label affixed to the LAN card.
- When the LAN card is being installed for the first time or if the LAN card was used previously for another printer model, the printer name displayed as a result of searching for the LAN card may differ from the actual printer name. In this event, reset the LAN card to factory defaults before configuring the LAN card. (For information on how to reset the LAN card to factory defaults, see the explanation of print servers in this chapter.)

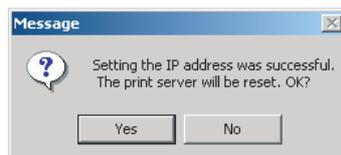
1. From the AdminManager menu bar, select Configuration and Set IP address to activate the IP address assignment tool.



2. Enter the Ethernet address and IP address of the LAN card you are configuring, and click OK.



3. Reset the LAN card to make the specified IP address effective. Click Yes.



Caution

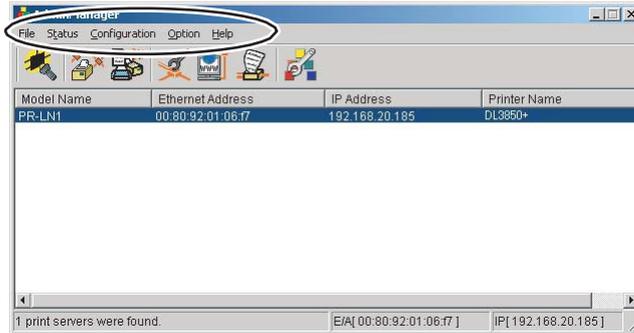
AdminManager may fail to restart. In this event, switch off the printer, and then switch it on again.

# AdminManager functions

## AdminManager menu



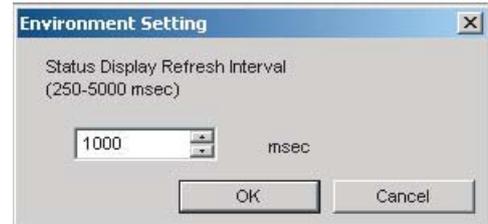
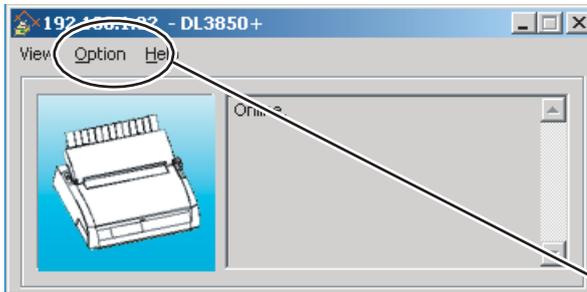
The AdminManager displays may differ from those contained in this manual, depending on the environment and/or the LAN card model in use.



Menu	Item	Description
File	Search	Search the network for this LAN card.
	Quit	Quit AdminManager
Status	Printer Status	Display the printer status on the monitor.
	System Status	Display the system status on the monitor.
	Configuration summary	Display LAN card configuration information.
Configuration	Print Server Configuration	Configure LAN card parameters.
	Configuration via Web browser	Display the Web page of this LAN card.
	Restart	Restart the LAN card.
	Diagnostic Status Page	Ask the LAN card to perform self-diagnostic printing.
	Assign IP address	Manually assign the IP address.
Option	Environment setting	Configure the AdminManager environment.
Help	About	Display the AdminManager version.

## Printer status

You can view the status of the printer connected to the LAN card you select on the AdminManager window on a real-time basis. You can specify printer status refresh intervals in the Environment Settings window.



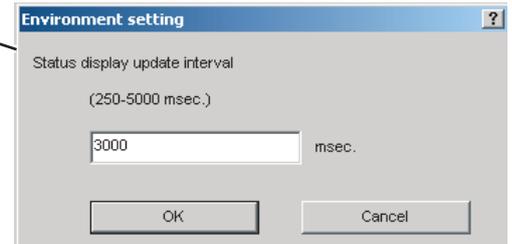
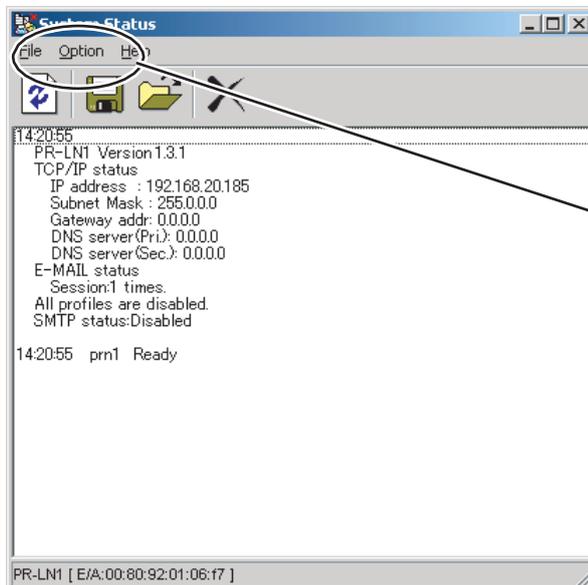
Printer status environment setting



AdminManager may be unable to obtain the printer status normally, depending on the printer model.

## System status

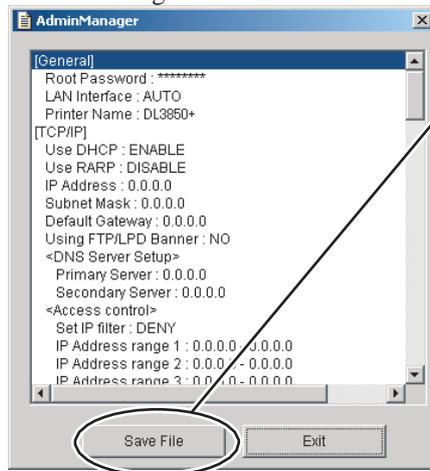
You can view the status of the LAN card you select on the AdminManager window on a real-time basis. You can also save (log) the operating status of the LAN card and read it later. Furthermore, you can specify system status refresh intervals on the Environment setting window.



The displayed items may vary depending on the LAN card model in use.

## Configuration parameter list

You can view the list of the parameter values configured for the LAN card. You can also save the list in a file for management.

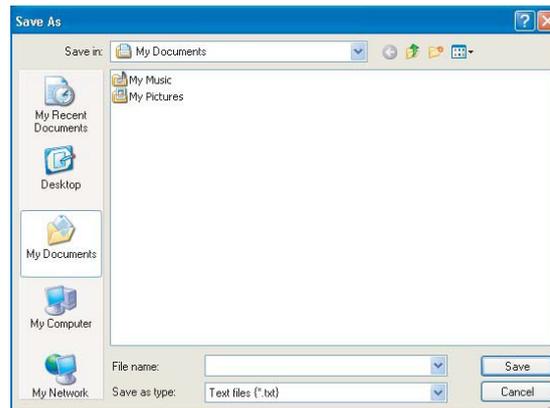


Click this button to bring up a window for saving configuration information in a file.



Caution

The displayed items vary depending on the LAN card model in use.

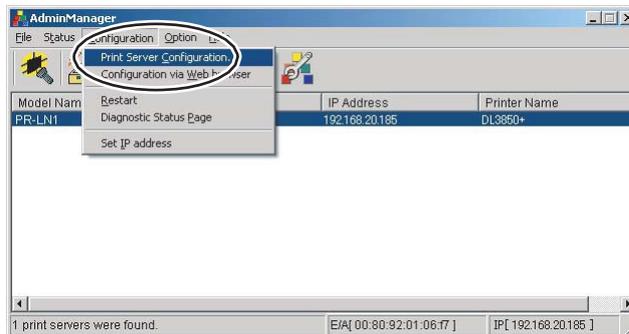


# USING ADMINMANAGER TO CONFIGURE THE LAN CARD

## Configuring the print server

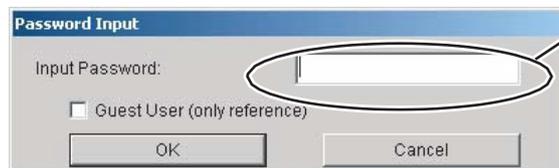
In AdminManager, select Configuration and Print Server Configuration. You can make detailed LAN card configuration settings or modify the existing configuration.

1. Specify the LAN card to be configured. From the AdminManager menu bar, select Settings and Print Server Configuration.



Hint

- If the LAN card is password-protected, a password input window appears.
- If you have checked the Guest user check box, you can view the configuration information but cannot modify it.



Password input window

2. The window below appears. Select the desired tab and proceed with configuration.



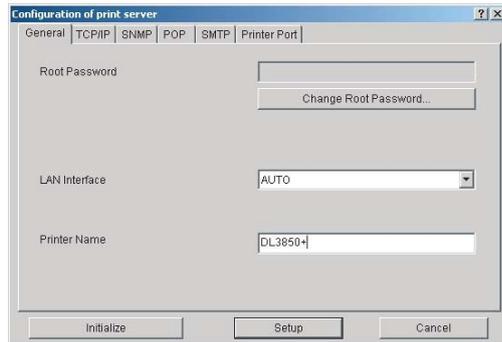
Hint

### Initialize

When you click Initialize, the LAN card is reset to factory defaults. Even if no password has been set, a password input window appears. Leave the password field blank.

## General configuration

Generally configure the LAN card for the network.

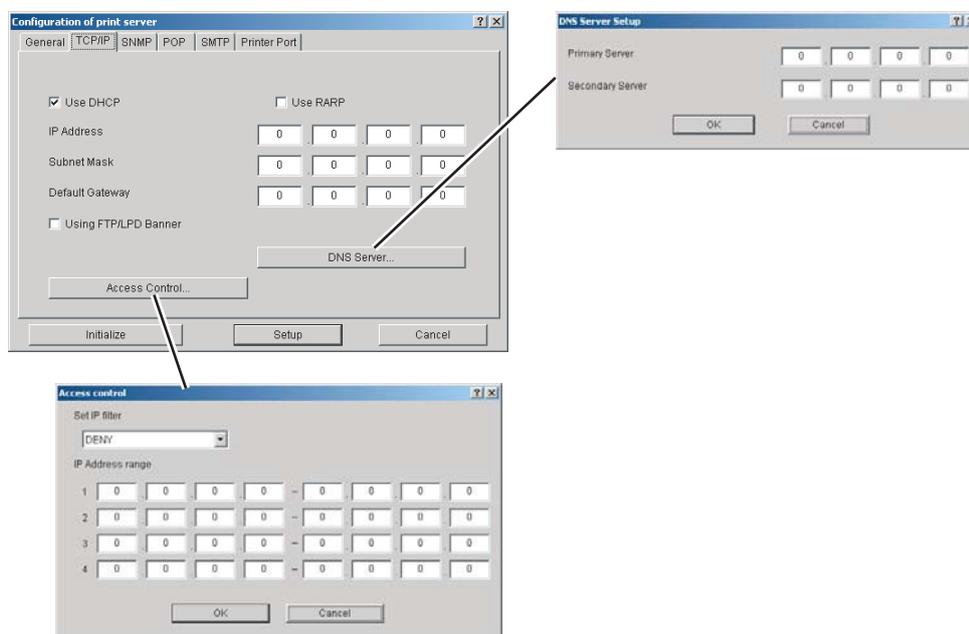


### General Tab

Item	Description	Factory default
Root Password	Specify a password for the LAN card using an ASCII character string (up to 7 characters). This password is used as the authentication password for configuration using AdminManager or a Web browser.	None
Change Root Password	Change the password.	-
LAN Interface	Specify the physical network type. Normally, select AUTO. If the LINK light on the hub to which the LAN card is connected does not go on when the LAN card is switched on, change this setting to the network type of connected hub.	Auto
Printer Name	Specify the printer name (up to 31 characters).	None

## TCP/IP configuration

Configure the LAN card for the IP address and other TCP/IP protocol parameters and IP-address based access control for enhancing the security features.



### TCP/IP Tab

Item	Description	Factory default
Use DHCP	Specify whether to enable or disable the DHCP protocol.	ENABLE
Use RARP	Do not change this setting because this LAN card does not support RARP.	DISABLE
IP Address	Specify the IP address of the LAN card using the decimal format of xxx.xxx.xxx.xxx.	0.0.0.0
Subnet Mask	Specify the subnet mask of the LAN card using the decimal format of xxx.xxx.xxx.xxx. The specification of 0.0.0.0 is invalid and the default subnet mask corresponding to the specified IP address is assumed.	0.0.0.0
Default Gateway	Specify the default gateway of the LAN card using the decimal format of xxx.xxx.xxx.xxx. The specification of 0.0.0.0 is invalid.	0.0.0.0
Use FTP/LPD Banner	Specify whether to print (ENABLE) or not print (DISABLE) a banner page during FTP or LPD printing.	DISABLE
DNS Server		
Primary Server	Specify the DNS server (primary) address. If you directly specify the IP address of the POP/SMTP server, you can skip this step. The decimal format of xxx.xxx.xxx.xxx is used.	0.0.0.0
Secondary Server	Specify the DNS server (secondary) address. If you directly specify the IP address of the POP/SMTP server, you can skip this step. The decimal format of xxx.xxx.xxx.xxx is used.	0.0.0.0

Item	Description	Factory default
Access Control		
Set IP Filter	Specify the IP filter operation by selecting ALLOW or DENY. If you select ALLOW, the filter passes data only from IP addresses included in the specified IP address range. If you select DENY, the filter rejects data from IP addresses included in the specified IP address range.	DENY
IP Address Range	Specify up to four IP address ranges for the IP filter.	0.0.0.0



Hint

If you plan to use the filter under the DHCP protocol, set the Use RARP item to DISABLE.

## SNMP configuration

Configure the LAN card to enable management via the network.

### SNMP Tab

Item	Description	Factory default
Authentic Community	Specify the authentication community name of SNMP. This community name will be authenticated when receiving an SNMP Set Request. (Use up to 15 characters.)	public
Trap Community	Specify the trap community name of SNMP. The LAN card will use this community name when issuing a trap. (Use up to 15 characters.)	public
Trap Destination Address	Specify the IP address of the SNMP trap destination using the decimal format of xxx.xxx.xxx.xxx. The specification of 0.0.0.0 invalidates any SNMP trap destination address and disables the LAN card from issuing traps.	0.0.0.0
<b>MIB-II Parameters</b>		
SysContact	Specify the SysContact parameter, which is usually the administrator's mail address. (Use up to 255 characters.)	None
SysName	Specify the SysName parameter, which is usually the host name or domain name of the LAN card. (Use up to 255 characters.)	None
SysLocation	Specify the SysLocation parameter, which is usually the location of the LAN card. (Use up to 255 characters.)	None
Enable Authen Trap	Specify whether to ENABLE or DISABLE EnableAuthenTrap. Setting this parameter to ENABLE causes an SNMP trap to be issued to the IP address (specified as the trap destination address) at the occurrence of an SNMP community violation.	DISABLE

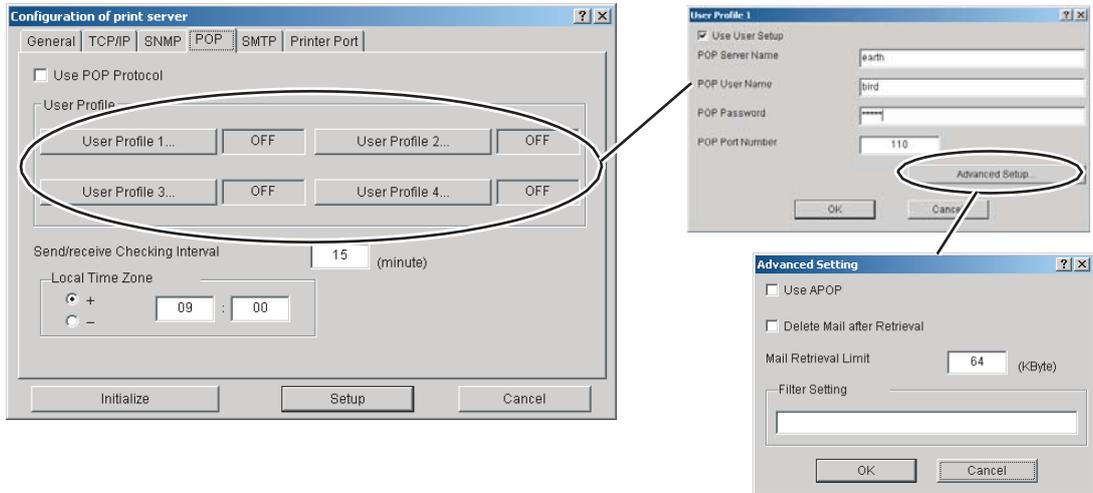


Caution

- This LAN card supports the following traps:
  - coldStart (trap that is issued when the LAN card is switched on)
  - authenticationFailure (trap that is issued when an authentication error occurs)
  - enterpriseSpecific (trap that is issued when a printer error occurs)
- Before the SNMP manager can receive traps issued by this LAN card, both the LAN card and the SNMP manager must exist in the same community (management group). Note that the SNMP manager cannot receive traps if the community names are blank or do not match.
- For security, you should change the default value (public).

## POP configuration

Configure the LAN card to ensure that you can receive mail from the mail server.



Item	Description	Factory default
Use POP Protocol	Specify whether to ENABLE or DISABLE the POP protocol (mail receiving function).	DISABLE
User Profile (1-4)	Specify whether to ENABLE or DISABLE the mail receiving function for each user.	DISABLE
POP Server Name	Specify the host name (or IP address) of the mail server. If the domain name is to be used, DNS server configuration is required. (Use up to 78 characters.)	None
POP User Name	Specify the login name (user name) of the mail account. (Use up to 31 characters.)	None
POP Password	Specify the password used for connection to the mail server. (Use up to 31 characters.)	None
POP Port Number	Specify the POP port number. Normally, use the default value (110).	110
Send / receive checking Interval (minutes)	Specify in minutes the mail-checking interval, which is the interval at which the LAN card will inquire of the mail server about new incoming mail arrivals.	15
Local time zone	Specify the local time zone. For Japan, specify +09:00.	+09:00



Hint

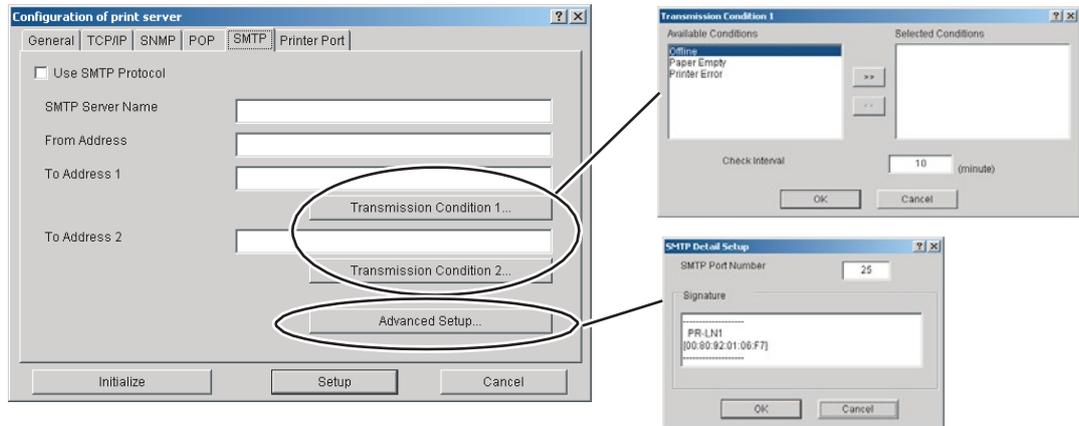
If you enable the mail receiving function, you should load paper on the printer because received mail will be printed.

## Advanced settings

Item	Description	Factory default
Use APOP	Specify whether to ENABLE or DISABLE the use of APOP on the mail server. Before APOP can be used, the mail server must support APOP.	DISABLE
Delete Mail after Retrieval	Specify whether to ENABLE or DISABLE the deletion of mail from the mail server once it is retrieved. If one or more files are attached to a mail message, the message will not be deleted even when this item is set to ENABLE.	DISABLE
Mail Retrieval Limit	Mail messages with a size equal to or exceeding the specified size will not be retrieved. Mail that is not retrieved will not be deleted even when ENABLE is set for Delete Mail After Retrieval. If you set 0 for this parameter, the LAN card will not check the size of any mail message and retrieve all mail.	64
Filter Setting	Configure the LAN card to ensure that particular mail will be printed. If you specify a null (empty string), all mail messages will be eligible for printing. You can specify a combination of four conditions connected with the OR (   ) or AND ( & ) operators: subject condition (S:character-string), to-address condition (T:character-string), from-address condition (F:character-string), and carbon-copy address condition (C:character-string). (Use up to 80 characters.)	None

## SMTP configuration

Configure the LAN card to ensure that the LAN card reports when the printer goes offline or runs out of paper.



Item	Description	Factory default
Use SMTP Protocol	Specify whether to ENABLE or DISABLE the SMTP protocol. Setting this item to DISABLE makes the e-mail sending function unavailable.	DISABLE
SMTP Server Name	Specify the host name of the SMTP server. The host name must be the domain name or IP address. If the domain name is to be used, the DNS server configuration is required. (Use up to 78 characters.)	None
From Address	Specify the sender's address, which is usually the network administrator's mail address. (Use up to 78 characters.)	None
To Address (1-2)	Specify the recipient's address. (Use up to 78 characters.)	None

### Transmission Condition (1-2)

Item	Description	Factory default
Events		
Offline	Mail is sent when the printer goes offline.	OFF
Paper Empty	Mail is sent when the printer runs out of paper.	OFF
Printer Error	Mail is sent when the printer encounters an abnormality.	OFF
Check Interval	The LAN card checks for any event record at certain intervals (in minutes). If more than one event occurred during an interval, information on the events is sent at one time.	10

### Advanced Setup

Item	Description	Factory default
SMTP Port Number	Specify the SMTP port number. Normally, use the default value (25).	25
Signature	Enter the character string to be added at the end of each mail message to be sent. (Use up to 63 one-byte characters.)	PR-LN1 00:80:92:XX:XX:X (Product name and the low-order 6 digits of the

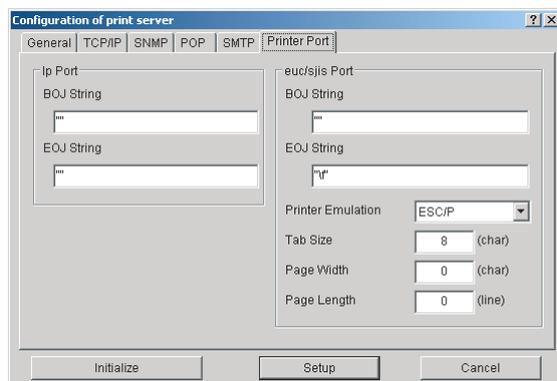
## Mail format sample

```
[SYSTEM STATUS]
PR-LN1 Version 1.1.0
TCP/IP status
    IP Address      : 192.168.1.230(DHCP)
    Subnet Mask    : 255.255.255.0
    Gateway addr   : 192.188.1.10
DHCP Server       : 192.168.1.1
Lease time        : 259200sec
    DNS server(Pri.) : 192.188.1.1
    DNS Server(Sec.) : 192.168.1.2
E-MAIL status
    Session        : 1 times.
POP3 USER1
    NAME           : printia
    SEEVER         : 192.168.1.4:110(1st Session)
MODE
    STATUS         : RETR 0 / DELETED 0 / FILTERED 0
    RESULT         : Success
POP3 USER2
    RESULT         : Disabled
POP3 USER3
    RESULT         : Disabled
POP3 USER4
    RESULT         : Disabled
SMTP status
TO-ADDR1
    E-MAIL Address : <printia@jp.fujitsu.com>
    Last Session   : Success
    Current status : Idle
    Try to send    : 3 times.
    Fail to sendr  : 0 times.
TO-ADDR2
    E-MAIL Address : <toriyama@jp.fujitsu.com>
    Last Session   : Nothing
    Current status : Waiting for Interval time.
    Try to send    : 0 times.
    Fail to sendr  : 0 times.

[PRINTER STATUS]
00:04:27 <00101111> Not Ready (Busy PaperEmpty Fault)and Printing
00:03:08 <00101110> Not Ready (Busy PaperEmpty Fault)
00:03:03 <00100110> Not Ready (Busy Fault)
00:01:58 <00100110> Not Ready (Busy Fault)
-----
PR-LN1
[00:80:92:01:23:45]
-----
```

## Printer port configuration

Printer port configuration is detailed configuration that enables output to the printer.



Item	Description	Factory default
lp port		
BOJ String	Specify the character string to be sent to the printer before actual data is output to the direct output port (lp port). If you need to send control codes, etc., before printing, specify this item. (Use up to 31 characters.)	None
EOJ String	Specify the character string to be sent after actual data is output to the direct output port (lp port). If you need to send control codes, etc., after printing, specify this item. (Use up to 31 characters.)	None
euc/sjis port		
BOJ String	Specify the character string to be sent to the printer before actual data is output to the euc/sjis port. If you need to send control codes, etc., before printing, specify this item. (Use up to 31 characters.)	None
EOJ String	Specify the character string to be sent to the printer after actual data is output to the euc/sjis port. If you need to send control codes, etc., after printing, specify this item. (Use up to 31 characters.)	\f
Printer Emulation	Specify the value that matches the printer emulation (PDL). The specified value will be converted to a code suitable for the printer emulation when it is output to the euc/sjis port.	ESC/P
Tab Size	Specify the number of one-byte spaces (0x20) that are converted from a tab code (0x09) when it is output via the kanji filter. If you specify 0, tabs will not be converted to spaces. You can specify a value from 0 to 16.	8
Page Width	Specify the number of characters per line when they are output via the kanji filter. You can specify a value from 0 to 255.	0
Page Length	Specify the number of lines per page when they are output via the kanji filter. You can specify a value from 0 to 255.	0



Hint

When specifying BOJ and EOJ strings, enclose the strings in double quotation marks ("). Therefore, the strings must not contain a double quotation mark. (Also, do not use hexadecimal representation for the same reason.)

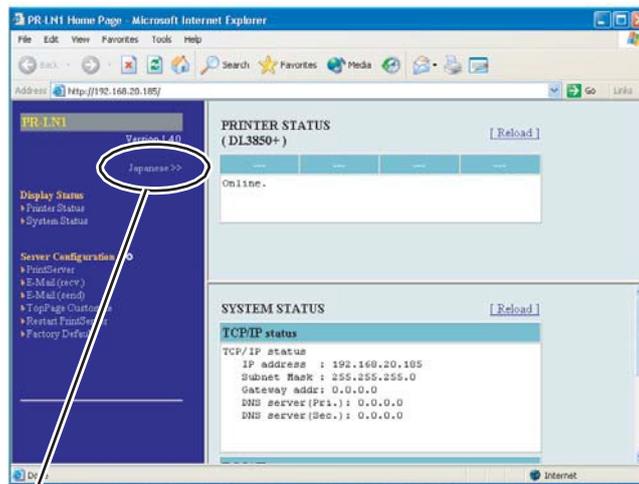
# CONFIGURATION USING A WEB BROWSER

Since this LAN card includes the HTTP protocol, you can use a Web browser when making detailed LAN card configuration settings or changing the existing configuration. You can also make use of convenient functions, such as those for remote restart, self-diagnostic printing, and printer status monitoring.



Caution

- Before you can use a Web browser, the LAN card must support the TCP/IP protocol and be assigned an IP address.
- As the Web browser, you should use Internet Explorer 6.0 or later. The displays may slightly vary depending on the Web browser in use.
- The displays on the Web browser vary with the LAN card model.
- If you change the existing configuration via the Web browser, be sure to restart the print server.



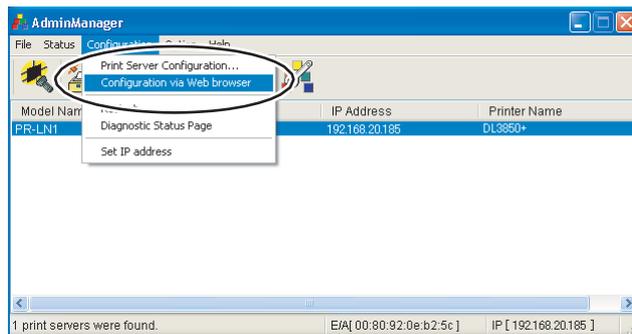
English is used on the initial screen. Japanese language users can set the language to Japanese by clicking Japanese.

## Displaying the Web page of this LAN card

To display the Web page of the LAN card you are configuring, you can use one of two methods:

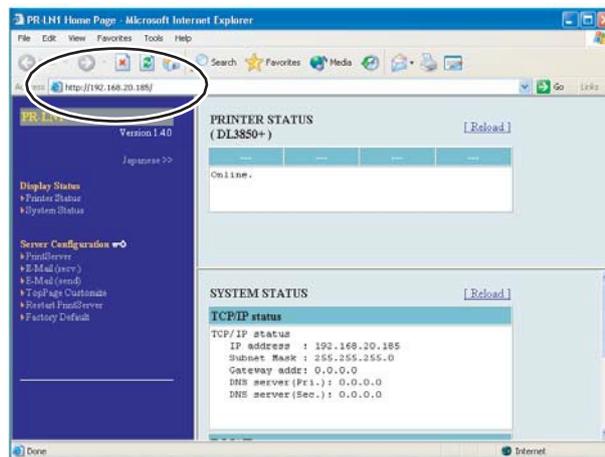
### Using AdminManager

From the LAN card list displayed in AdminManager, select the LAN card to be configuration via Web browser and select Configuration and Configuration Via Web Browser.



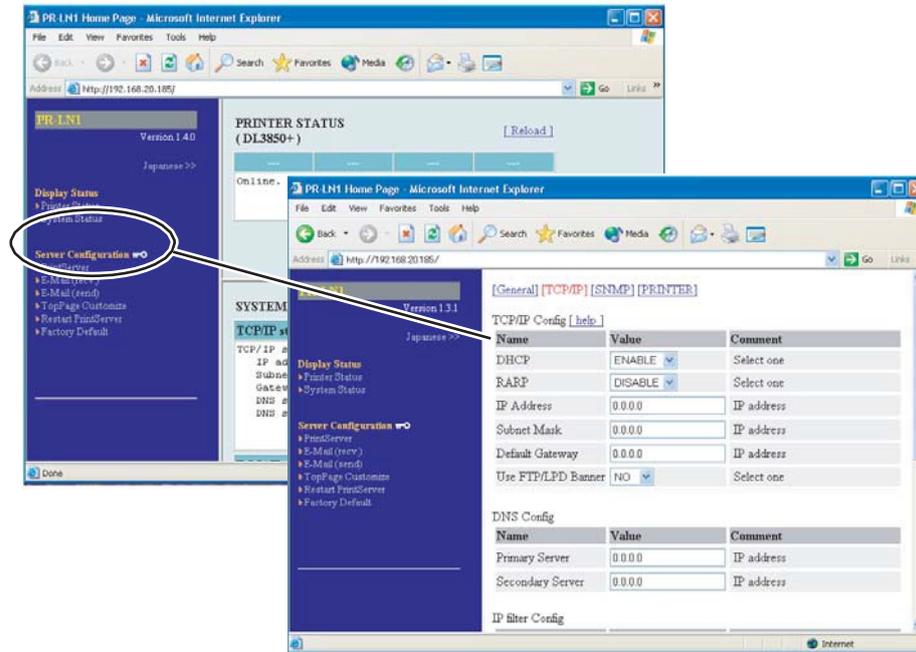
### Using the Web browser

Enter in the Web browser the IP address assigned to the LAN card.  
example: <http://192.168.20.185>



## Configuring this LAN card from the Web page

The Web browser displays a list of configuration items. Click the items you want to set. The configuration screen appears. Enter values in the pertinent parameter fields.



### Menu displayed on the Web page of the LAN card

Display Status	Printer Status	Display the printer status.
	System Status	Display the system status.
Server Configuration	Print server	Configure LAN card parameters.
	E-mail (recv.)	Configure the e-mail receiving function.
	E-mail (send)	Configure the e-mail sending function.
	Top Page Customize	Configure the display of the LAN card Web page.
	Restart Print Server	Restart the LAN card.
	Factory default	Reset the LAN card configuration to factory defaults.



Caution

- If you are prompted to enter the user name when changing configuration parameters, enter root.
- If you are updating the existing configuration, select Restart Print Server included in the Change Configuration menu and restart the LAN card.

# CONFIGURATION PARAMETERS ON THE WEB BROWSER

## Print server

### General

Configure the LAN card for the network.

Item	Description	Factory default
Change Root Password	Specify an administrator password for the LAN card using an ASCII character string. (up to 7 characters.) This password is used as the authentication password for configuration using AdminManager or a Web browser.	None
LAN Interface	Specify the physical network type. Normally, select AUTO. If the LINK light on the hub to which the LAN card is connected does not go on when the LAN card is switched on, change this setting to the network type of the connected hub.	AUTO
Printer Name	Specify the printer name. (up to 31 characters.)	None

### TCP/IP

Configure the LAN card for the IP address and other TCP/IP protocol parameters.

Item	Description	Factory default
DHCP	Specify whether to ENABLE or DISABLE the DHCP protocol.	ENABLE
RARP	Do not change this setting because this LAN card does not support RARP.	DISABLE
IP Address	Specify the IP address of the LAN card using the decimal format of xxx.xxx.xxx.xxx.	0.0.0.0
Subnet Mask	Specify the subnet mask of the LAN card using the decimal format of xxx.xxx.xxx.xxx. The specification of 0.0.0.0 is invalid and the default subnet mask corresponding to the specified IP address is assumed.	0.0.0.0
Default Gateway	Specify the default gateway of the LAN card using the decimal format of xxx.xxx.xxx.xxx. The specification of 0.0.0.0 is invalid.	0.0.0.0
Use FTP/LPD Banner	Specify whether to print (ENABLE) or not print (DISABLE) a banner page during FTP or LPD printing.	NO

## TCP/IP

Item	Description	Factory default
DNS Config		
Primary Server	Specify the DNS server (primary) address. If you directly specify the IP address of the POP/SMTP server, you can skip this step. The decimal format of xxx.xxx.xxx.xxx is used.	0.0.0.0
Secondary Server	Specify the DNS server (secondary) address. If you directly specify the IP address of the POP/SMTP server, you can skip this step. The decimal format of xxx.xxx.xxx.xxx is used.	0.0.0.0
IP filter Config		
Filter Mode	Specify the IP filter operation by selecting ALLOW or DENY. If you select ALLOW, the filter passes data only from IP addresses included in the specified IP address range. If you select DENY, the filter rejects data from IP addresses included in the specified IP address range.	DENY
IP Address Range	Specify up to four IP address ranges for the IP filter.	0.0.0.0



Hint

If you plan to use the filter under the DHCP protocol, set the RARP parameter to DISABLE.

## SNMP

Make the LAN card configuration settings to enable management via the network.

Item	Description	Factory default
AuthenticCommunity	Specify the authentication community name of SNMP. This community name will be authenticated when receiving an SNMP Set Request. (Use up to 15 characters.)	public
TrapCommunity	Specify the trap community name of SNMP. The LAN card will use this community name when issuing a trap. (Use up to 15 characters.)	public
TrapAddress	Specify the IP address of the SNMP trap destination using the decimal format of xxx.xxx.xxx.xxx. The specification of 0.0.0.0 invalidates any SNMP trap destination address and disables the LAN card from issuing traps.	0.0.0.0
SysContact	Specify the SysContact parameter, which is usually the administrator's mail address. (Use up to 255 characters.)	None
SysName	Specify the SysName parameter, which is usually the host name or domain name of the LAN card. (Use up to 255 characters.)	None
SysLocation	Specify the SysLocation parameter, which is usually the location of the LAN card. (Use up to 255 characters.)	None
EnableAuthen Trap	Specify whether to ENABLE (1) or DISABLE (2) EnableAuthenTrap. Setting this parameter to ENABLE causes an SNMP trap to be issued to the IP address (specified as the trap destination address) at the occurrence of an SNMP community violation.	2

## Printer

Make detailed printer configuration settings for outputting to the printer.

Item	Description	Factory default
BOJ String (lp)	Specify the character string to be sent to the printer before actual data is output to the direct output port (lp port). If you need to send control codes, etc., before printing, specify this parameter. (Use up to 31 characters.)	None
EOJ String (lp)	Specify the character string to be sent after actual data is output to the direct output port (lp port). If you need to send control codes, etc., after printing, specify this parameter. (Use up to 31 characters.)	None
BOJ String (sjis)	Specify the character string to be sent to the printer before actual data is output to the sjis/euc port. If you need to send control codes, etc., before printing, specify this parameter. (Use up to 31 characters.)	None
EOJ String (sjis)	Specify the character string to be sent to the printer after actual data is output to the sjis/euc port. If you need to send control codes, etc., after printing, specify this parameter. (Use up to 31 characters.)	\f
Printer Emulation	Specify the value that matches the printer emulation (PDL). The specified value will be converted to a code suitable for the printer emulation when it is output to the sjis/euc port.	ESC/P
Tab Size (char.)	Specify the number of one-byte spaces (0x20) that are converted from a tab code (0x09) when it is output via the kanji filter. If you specify 0, tabs will not be converted to spaces. You can specify a value from 0 to 16.	8
PaperWidth(char.)	Specify the number of characters per line when they are output via the kanji filter. You can specify a value from 0 to 255.	0
Paper Length (line)	Specify the number of lines per page when they are output via the kanji filter. You can specify a value from 0 to 255.	0

## E-mail receiving (POP)

Configure the LAN card to ensure that you can receive mail from the mail server.

Item	Description	Factory default
Basic settings		
POP Protocol	Specify whether to ENABLE or DISABLE the POP protocol (mail receiving function).	DISABLE
Check Interval (minutes)	Specify in minutes the mail-checking interval, which is the interval at which the LAN card will inquire of the mail server about new incoming mail arrivals.	15
Local Time Zone	Specify the local time zone. For Japan, specify +09:00.	+09:00
Use Config (1-4)	Specify whether to ENABLE or DISABLE the mail receiving function for each user.	DISABLE
POP Server Name	Specify the host name (or IP address) of the mail server. If the domain name is to be used, DNS server configuration is required. (Use up to 78 characters.)	None
POP Port Number	Specify the POP port number. Normally, use the default value (110).	110
POP User Name	Specify the login name (user name) of the mail account. (Use up to 31 characters.)	None
POP Password	Specify the password used for connection to the mail server. (Use up to 31 characters.)	None
Use APOP	Specify whether to ENABLE or DISABLE the use of APOP on the mail server. Before APOP can be used, the mail server must support APOP.	No
Delete Mail after Retrieval	Specify whether to ENABLE or DISABLE the deletion of mail from the mail server once it is retrieved. If one or more files are attached to a mail message, the message will not be deleted even when this parameter is set to ENABLE.	No
Maximum Retrieve (KByte)	Mail messages with a size equal to or exceeding the specified size will not be retrieved. Mail that is not retrieved will not be deleted even when ENABLE is assigned to Delete Mail After Retrieval. If you set 0 for this parameter, the LAN card will not check the size of any mail message and retrieve all mail.	64
Filter Setting	Configure the LAN card to ensure that particular mail will be printed. If you specify a null (empty string), all mail messages will be eligible for printing. You can specify a combination of four conditions connected with the OR ( ) or AND (&) operators: subject condition (S:character-string), to-address condition (T:character-string), from-address condition (F:character-string), and carbon-copy address condition (C:character-string). (Use up to 80 characters.)	None



If you enable the mail receiving function, you should load paper on the printer because received mail will be printed.

## E-mail sending (SMTP)

Configure the LAN card to ensure that the LAN card will notify you of the printer's offline status or paper-out condition.

Item	Description	Factory default
SMTP Protocol	Specify whether to ENABLE or DISABLE the SMTP protocol. Setting this parameter to DISABLE makes the e-mail sending function unavailable.	DISABLE
SMTP Server Name	Specify the host name of the SMTP server. The host name must be the domain name or IP address. If the domain name is to be used, DNS server configuration is required. (Use up to 78 one-byte characters.)	None
SMTP Port Number	Specify the SMTP port number. Normally, use the default value (25).	25
From Address	Specify the sender's address, which is usually the network administrator's mail address. (Use up to 78 one-byte characters.)	None
Signature Line (1-4)	Enter the character string to be added at the end of each mail message to be sent. (Use up to 63 one-byte characters.)	<pre> -----PR-INI----- [00:80:92:   XX.XX.XX] ----- (Product name and the low- order 6 digits of the Ethernet address) </pre>
Send Address (1-2)	Specify the conditions for the mailing address (1-2).	-
To address (1-2)	Specify the recipient's address. (Use up to 78 one-byte characters.)	None
Check Interval (min.)	The LAN card checks for any event record at certain intervals (in minutes). If more than one event occurred during an interval, information on the events is sent at one time.	10
Offline	Mail is sent when the printer goes offline.	OFF
Paper Empty	Mail is sent when the printer runs out of paper.	OFF
Fault	Mail is sent when the printer encounters an abnormality.	OFF



# CHAPTER 5 POPUP STATUS MONITOR

## THE POPUP STATUS MONITOR

The Popup Status Monitor notifies the user about the printer status by displaying it on the PC screen. Because it is a desktop-resident function, the Popup Status Monitor can monitor the printer status on a real-time basis.

### Starting the Popup Status Monitor

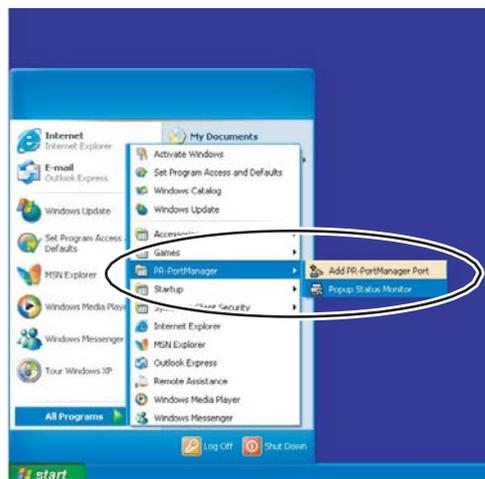
To start the Popup Status Monitor, select Start (\*1), Programs or All Programs(\*2), PR-PortManager (or the group name that has been specified), and Popup Status Monitor.

\*1 The Windows logo under the left of the screen is shown.

If the operating system is Windows 8/Windows Server 2012, please select Popup Status Monitor from a Start screen.

If the operating system is Windows 8.1/Windows Server 2012 R2, please select Popup Status Monitor from a Apps view screen.

\*2 If the operating system is Windows 10, it becomes "All apps".

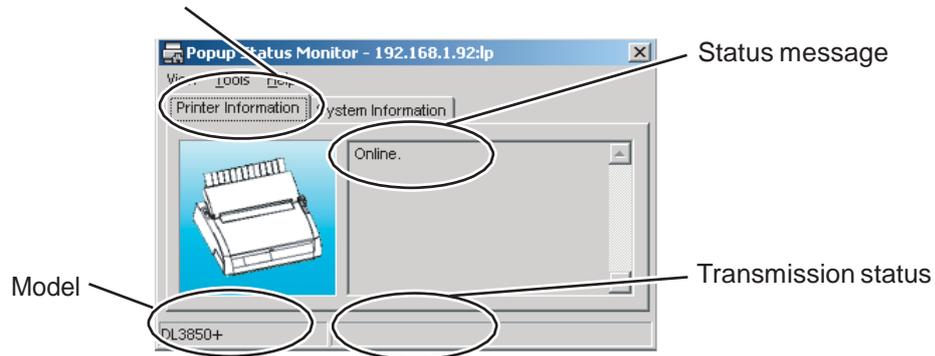


## Popup Status Monitor displays

Popup Status Monitor displays detailed printer information in a standard Windows look-and-feel format.

### Printer information

The printer status and printing status are displayed.



#### Status message

The following character strings are used to represent the printer status:

- Online
- Printing
- Cover Open
- Paper out
- Offline.

#### Model

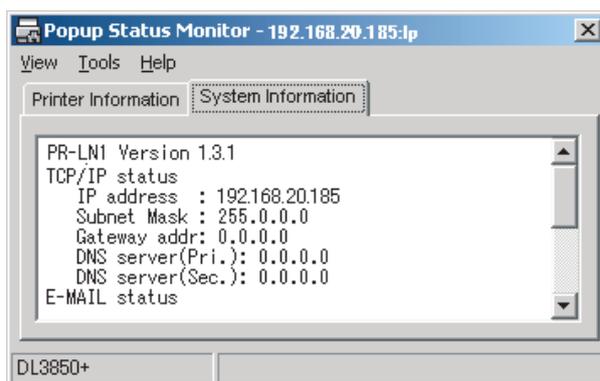
The model of the LAN card is displayed.

#### Transmission status

The status of print data transmission is displayed.

## System information

The system status of the LAN card is displayed.



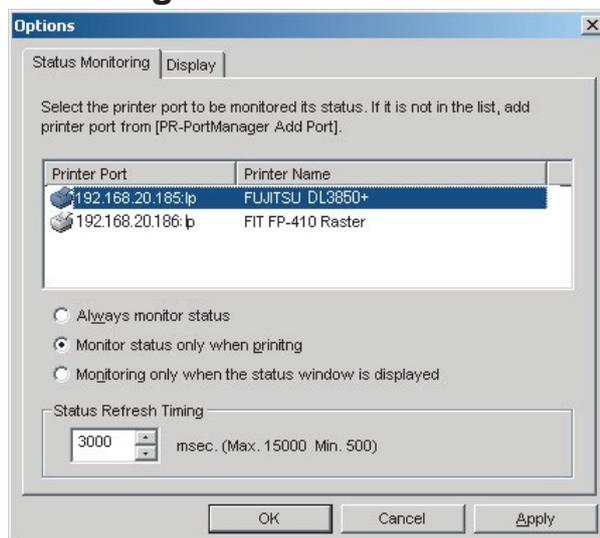
### Menus

Menu	Item	Description
View	Always Display in Front	Always displays the Popup Status Monitor window as the top window. However, if another window configured to appear as the top window is displayed, the Popup Status Monitor window will be hidden behind it.
	Minimize	Minimize the window. To return the window to its original size, click the icon on the task bar.
	Exit	Exit from Popup Status Monitor.
Tools	Options	Open the Option Configuration window.
Help	About	Display version information.

## Option Configuration window

You can change the condition for using Popup Status Monitor. Click Option Configuration to open the Option Configuration window.

### Status monitoring



#### PR-PortManager port list

This area displays a list of the PR-PortManager ports registered in your PC. From this list, you can select the LAN card you want to monitor the status of.



Caution

This list includes LPR ports only and does not include IPP ports.

#### Always monitor status

Makes Popup Status Monitor reside in the system, thus allowing you to monitor the printer status all the time.

#### Monitor status only when printing

The printer status is monitored only during printing via the PR-PortManager port. Printer status monitoring will end automatically when print data transmission via the PR-PortManager port ends.

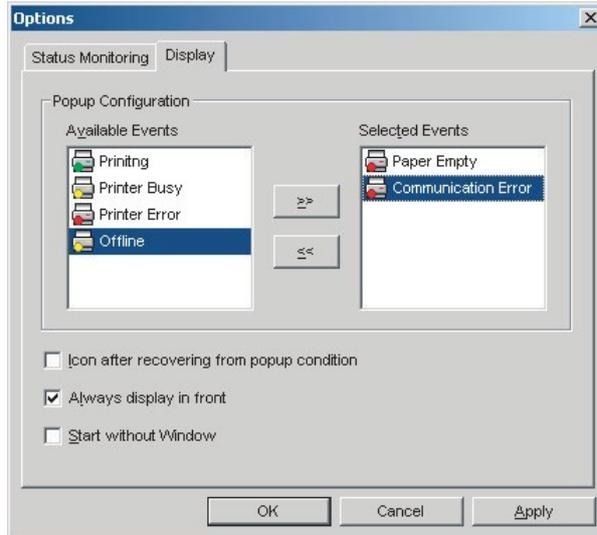
#### Monitoring only when the status window is displayed

The printer status is not monitored. Each time you need to monitor the printer status, you need to start Popup Status Monitor.

#### Status Refresh Timing

Specify intervals at which the printer status will be refreshed.

## Display



### Available Events

This area displays a list of events that can be handled by Popup Status Monitor.

### Selected Events

This area displays a list of events that are selected as the targets of monitoring by the Popup Status Monitor. If one of the selected events matches the printer event, a Popup Status Monitor window appears.

>>

Add events from the Available Events area to the Selected Events area.

<<

Return events from the Selected Events area to the Available Events area.

### Icon after recovering from popup condition

After the printer event ceases to exist, the Popup Status Monitor will be automatically minimized to an icon, which will reside on the task bar.

### Always display in front

The Popup Status Monitor window is always displayed as the top window. However, if another window configured to appear as the top window is displayed, the Popup Status Monitor window will be hidden behind it.

### Start without Window

Popup Status Monitor will remain minimized when activated.



# CHAPTER 6

## QUESTIONS AND ANSWERS

This chapter presents problems that are likely to occur when the LAN card is installed, as well as solutions to these problems.

### Notation used in this chapter

**Check** When you encounter a problem, first perform the checking procedure explained under [Check].

**Action** A specific method for solving the problem is explained.

## Problems encountered during installation

**I inserted the CD-ROM in the drive, but the main menu didn't start up.**

### Action

If you are in a Windows environment, the menu may not start automatically when you insert the CD-ROM, depending on the PC you are using. In this event, directly execute Autorun.exe contained in the root directory (D:\ if your CD-ROM drive is D).

**I ran a configuration tool (Quick Setup or AdminManager) to search for the LAN card, but the LAN card isn't included in the search result list or isn't recognized on the network.**

### Check1

Check for the following and perform the installation procedure again:

- Are the printer (if the LAN card is built in the printer) and the LAN card switched on?
- Is the network cable connected correctly?
- Print the settings list (print the setting contents) and check the setting value. Is the interface setting "INTRFCE: AUTOXXS"?



Hint

For information on how to print configuration parameters, refer to the printer manual.

### Check2

Check for the following and perform the installation procedure again:

- Is the LINK LED on the Ethernet hub to which the running LAN card is connected on? If not, verify that the network cable is connected correctly.
- Check the Ethernet hub port for any fault.

### Check3

If you want to use the TCP/IP protocol in a Windows XP/Windows Server 2003 environment, select Local Area Connection Properties and Advanced, and then uncheck Protect My Computer And Network By Limiting ...

### Check4

If your existing LAN card not supported in Windows Vista is initialized, it can no longer be found from Windows Vista. Search for the LAN card from another PC that is running a different operating system and connected via a network.

LAN cards of earlier than version 1.9.0 do not support Windows Vista.

Check the versions with System Status of AdminManager, which is a configuration tool.

### Check5

The firewall function of your PC is probably blocking searches.

- If the operating system is Windows XP, Windows Server 2003, Windows Vista, or Windows Server 2008, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 register exceptions with the Windows firewall.
- Temporarily disable the firewall or the protect function of the resident softwares like security software or proceed the exceptional registration.
- If the operating system is Windows XP or Windows Server 2003, select Local Area Network, Properties, and Advanced tab, and then temporarily disable Internet Connection Firewall.

### Check6

In the case of a connection through a router, the print server search by AdminManager or PR-PortManager may fail.

- Perform the search from the same LAN.

**The printer displayed by AdminManager is different from the actual printer.**

### Action1

Reset the LAN card to factory defaults, and retry the search.

### Action2

If you plan to use the LAN card with a printer that is different from the printer with which the LAN card is currently used, reset the LAN card to factory defaults, and then reconfigure it.

**A communication error occurs when I assign the IP address.**

### Check1

Verify that the LINK/STATUS LED on the LAN card is on correctly.

- Is the printer switched on?
- Is the network cable connected correctly?
- Is the Ethernet hub port normal?

### Check2

Verify that the IP address on the PC that is running the configuration tool is defined.

- Execute the Ping command at the MS-DOS prompt to verify that the LAN card can communicate with the PC you are using and other PCs included in the network.



Hint

For information on how to use the Ping command, see [Check 1] under "Problems encountered in Windows TCP/IP environments."

### Check3

Verify that the LAN card is reset to factory defaults.

- For information on how to reset the LAN card to factory defaults, see Chapter 4 "Configuring the print server".

### Check4

It is likely that the network includes a DHCP or RARP server.

- Since a router or server may have set an incorrect IP address to the LAN card, create an environment that does not include a router or server (a local environment consisting only of a PC, a hub, a printer, and one instance of the LAN card) and assign the IP address of the LAN card.

### Check5

It is likely that the LAN card and the PC being used for configuring the LAN card are not included in the same segment.

- Verify that the LAN card and the PC are in the same segment.

### Check6

Is the printer to which this product is affixed moved and connected to another network?

You can switch to an environment in which DHCP does not exist on the network, from an environment in which DHCP does exist on the network, by not resetting factory defaults.

- For connection to the environment prior to the move, reset factory defaults from AdminManager.



Caution

When moving the printer to which this product is affixed, and connecting it to another network, be sure to first reset factory defaults.

## The wizard window cannot be seen when installing the User Software.

### **Check**

When installing the User Software (Quick Setup, Advanced Setup (AdminManager), PR-PortManager), the wizard window may be hidden behind the main menu and cannot be seen in some environment. In such cases, move the main menu to confirm the wizard window.

## Problems encountered during printing

### The printer won't print.

#### **Check1**

Check for the following and perform installation again:

- Is the printer switched on?

#### **Check2**

Check for the following and perform installation again:

- Is the LINK LED on the Ethernet hub to which the running LAN card is connected on?
- Is the network cable connected correctly?
- Is the network cable normal (not broken)?
- Is the Ethernet hub port normal?

### Banner pages are not printed normally.

#### **Action**

It is likely that the configuration for the previous printing remains effective. Define a reset command by configuring the BOJ or EOJ string.

Example: "\x1B@"

### I want to stop printing.

#### **Action**

To ensure that printing will resume correctly, stop printing as follows:

1. From the printer folder, open the printer that was used for printing.
2. From the spooler, delete documents that are being printed.
3. Press the reset switch on the printer.

### The desired printer doesn't work, but another printer prints.

#### **Check**

- Verify that the IP address assigned to the printer you want to use does not match the address of the printer actually doing the printing.
- Check the IP address assignment and reconfigure the LAN card.

### Printing stops midway.

#### **Check1**

- Verify that the IP address assigned to the printer actually doing the printing does not match the address of some other printer.

#### **Check2**

- Have you sent a large amount of print data?
- If you have, printing may stop temporarily. Printing will resume within a certain period of time. Please wait.

### Check3

- When printing using the PR-PortManager LPR port, the LPR port setting can be set to "Do not use expansion port." On the printer properties window, click either "Configure Port" or "Port settings," and then enter a check in the checkbox for "The extension port is not used."

### Check4

- When printing multiple pages of cut-sheet data using the OS (Windows XP/Vista/7/8/8.1/10/Server 2003/ Server 2008/2008 R2/2012/2012 R2) standard IPP port, if the paper load timing is too slow, the OS will time out and stop printing.

Configure a dedicated IPP port (PR-PortManager) to print cut-sheet data.

## Problems encountered in Windows TCP/IP environments

### The printer won't print..

#### Check1

If you are using the TCP/IP protocol, execute the Ping command to see whether a reply comes from the IP address assigned to the LAN card. If you do not receive a reply, it is likely that the IP address has not been correctly assigned. Reset the LAN card to factory defaults, and then assign the IP address again.

Example :

To execute ping at the MS-DOS prompt in Windows 98: Select Start, Programs, and MS-DOS Prompt, and then run Ping XXX.XXX.XXX.XXX, where XXX.XXX.XXX.XXX is the IP address of the LAN card. The following will be displayed:

If a reply has arrived:

```
Reply from xxx.xxx.xxx.xxx: bytes=32 time=58ms TTL=253
```

If no reply has arrived:

```
Request timed out.
Request timed out.
Request timed out.
Request timed out.
```



Hint

For information on how to reset the LAN card to factory defaults, see Chapter 4 "Configuring the print server".

#### Check2

It is likely that the printer driver being used is not configured for the print port. Select Printer Properties and Details, and then confirm the print port settings. The port name for the LAN card should be PR-PortManager LPR Port or PR-PortManager IPP port preceded by an arbitrary name.

Example: Print port=xxx.xxx.xxx.xxx:lp<PR-PortManager LPR Port>, where xxx.xxx.xxx.xxx is the IP address.

**Action1**

If the PC and the LAN card are not included in the same segment, you need to assign the subnet mask and gateway address to the LAN card. Verify that the subnet mask and gateway address are correctly set to the LAN card, using AdminManager or the Web page of the LAN card.



Caution

Do not include connections across a router in the network (avoid a WAN or similar environment).

**Action2**

If a DHCP server is included in the network, it will perform automatic IP address assignment. Therefore, the IP address assigned to the LAN card may be rewritten by a DHCP server. To prevent DHCP servers from automatically assigning IP addresses to the LAN card, uncheck Use DHCP, a configuration parameter, and then assign the IP address again.

**An error occurs during printing.****Check**

If another user is printing a large number of pages or a large amount of data, your print request will not be accepted until the other user's printing job is completed. If your print request is suspended for a long time, a timeout error may occur. In this event, issue your print request again.

**Dial-up connection starts when I initiate printing.****Check**

When you cancel the dial-up service, control passes from the dial-up adapter to the LAN adapter. This will start printing. This behavior is based on the Windows specification.



# APPENDIX PR-LN1

## HARDWARE SPECIFICATION

### CPU

32-bit RISC CPU

### Memory

RAM : 2 MB

Flash ROM : 1 MB

### Network interface

10BASE-T/100BASE-TX (automatic recognition): 1 port

### Others

LEDs: STATUS (orange), 10Base LINK (green), and 100Base LINK (green)

# SOFTWARE SPECIFICATION

## Supported protocols

- TCP/IP

LPD, FTP, IPP, HTTP, DHCP, SNMP, POP3, SMTP, DNS, DDNS, TCP, UDP, ARP, IP, and ICMP

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**Printer LAN card PR-LN1**

**ONLINE MANUAL**

**C147-E048-07EN**

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