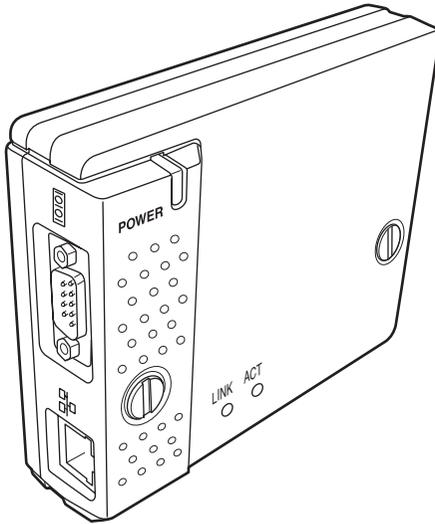


# EIKI

## PjNET-300

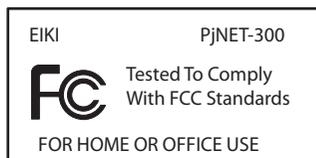


**OWNER'S MANUAL**

## Compliance

### Federal Communication Commission Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:



- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Use of shielded cable is required to comply with class B limits in Subpart B of Part 15 of FCC Rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

- Model Numbers : PjNET-300
- Trade Name : EIKI
- Responsible party : EIKI International, Inc.
- Address : 30251 Esperanza Rancho Santa Margarita CA 92688-2132
- Telephone No. : 800-242-3454 (949-457-0200)



### CAUTION ON USE IN NETWORK

- When you receive an alert e-mail from the projector, you must check the projector immediately. Fire or accident may result if the projector is used in an abnormal condition.
- When you install the projector at remote location and use it through the network, you must perform the safety inspections periodically. In this case you must pay attention to the change of environment in which you installed the projector. It may cause fire or an accident depending on the change of environment.

### CAUTION

Eiki International, Inc. assumes no responsibility for the loss or damage of data or damage of the computer caused by using this product.



The CE Mark is a Directive conformity mark of the European Community (EC).

**NOTE:** This symbol mark and recycle system are applied only to EU countries and not applied to the countries in the other area of the world.



Your EIKI product is designed and manufactured with high quality materials and components which are can be recycled and reused.

This symbol means that electrical and electric equipment, at their end-of-life, should be disposed of separately from your household waste.

Please dispose of this equipment at your local community waste collection/recycling centre.

In the European Union there are separate collection systems for used electrical and electric products.

Please help us to conserve the environment we live in!

# Contents

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Compliance .....	2
Federal Communication Commission Notice.....	2
Trademarks .....	2
Contents .....	4
<b>Chapter 1 Preparation</b> .....	<b>7</b>
Features .....	8
Operating environment.....	10
Before use .....	11
<b>Chapter 2 Installation</b> .....	<b>13</b>
Flow of installation .....	14
[1] Name and function of each part.....	15
[2] Installation and network configuration .....	16
Mounting .....	16
Connection of LAN cable .....	17
Network configuration .....	18
Network PIN code setting.....	20
How to enter the numbers with the screen 10-key pallet .....	21
Notice about system construction.....	22
<b>Chapter 3 Basic Setting and Operation</b> .....	<b>23</b>
Login the setting page of the projector .....	24
1 Enter the IP address .....	24
2 Select a display mode and login .....	24
3 Display of main setting page.....	25
How to use the setting page .....	26
Initial setting .....	28
Network PIN code setting.....	29
PJLink and password setting .....	29
What's PJLink? .....	29
Date and time setting .....	30
Network configuration .....	31
E-mail setting .....	32
Examples: Type and contents of alert mail.....	34
SNMP setting .....	36
<b>Chapter 4 Controlling the Projector</b> .....	<b>39</b>
Power control and status check .....	40
Controls .....	42
Input.....	42
System.....	43
Image adjustment.....	44
Sound .....	45
Menu .....	45
PC adjustment.....	46
Setting up the projector.....	47

Save the controls and settings .....	49
Save/delete the settings .....	49
Check the saved items .....	50
Load a control set .....	50
Timer setting .....	51
How to set the timer .....	51
Check the timer events.....	52
Change the event mode .....	52
Projector information.....	54
Multi-control .....	56
Controlling and setting the multi-projectors.....	56
Start/stop the multi control.....	57
Register the projector .....	58
Confirmation of registered projector.....	58
Change the mode of the registered projector .....	59
Status.....	59
Conf. & Change page in the light mode.....	60
Controlling all together.....	60
Setting all together.....	60
<b>Chapter 5 Use of Serial Port .....</b>	<b>61</b>
Serial port setting.....	62
Setting examples for the serial control .....	63
Control examples.....	64
Use of telnet.....	66
Control the projector with telnet.....	68
<b>Chapter 6 Appendix .....</b>	<b>69</b>
Examples of connection .....	70
Web browser setting.....	72
Examples: OS/Browsers .....	73
Product specification.....	77
Port specification .....	78
Q&A .....	79



# Chapter 1

## Preparation

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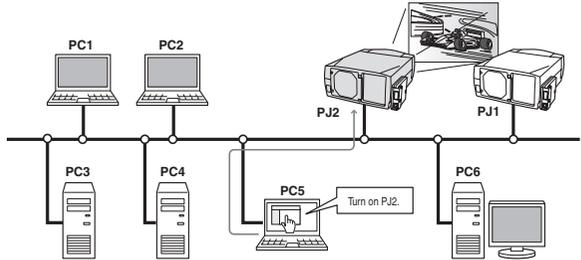
Describes features and operating environment of this product.

# 1

## Features

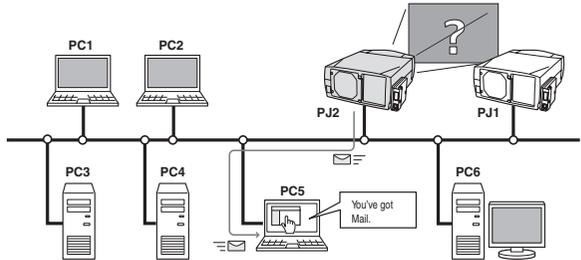
### Web Management function (p.39)

With this function, you can monitor projector functions such as power status, lamp status, input mode, signal condition, lamp-use time, etc. through the network by using the web browser installed on your computer.



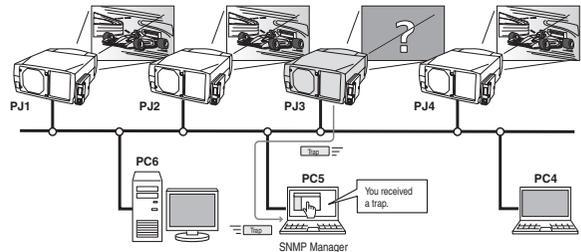
### E-Mail Alert function (p.32)

The projector (Network Unit) sends messages to the registered e-mail addresses when a lamp abnormality or power failure occurs on the projector. This message describes how to solve the cause of the problems. You can take efficient action for quick recovery.



### SNMP Agent function (p.36)

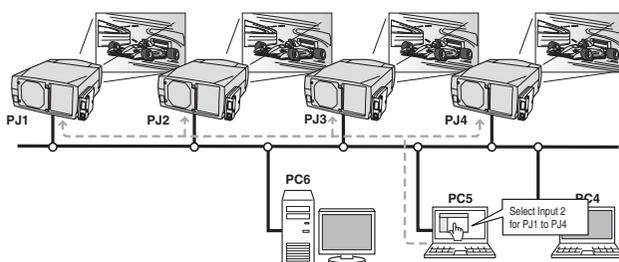
The function to send information of the projector to the SNMP manager. Enables you to manage the projector condition with the SNMP manager software \*.



\* This network unit does not provide the SNMP manager software.

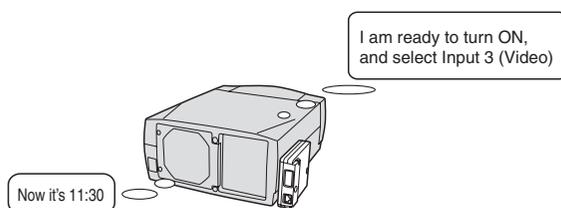
## Multi-control function (p.56)

A single computer can control and set up the multiple projectors at the same time.



## Automatic On/Off using Clock function (p.51)

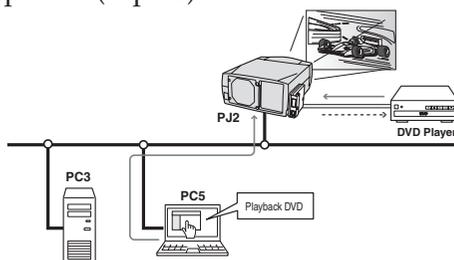
Automatically turn on or off the projectors at specified date/day and time by using the clock function.



## Control port ready for external equipment (p.61)

This product provides a serial port (RS-232C) for controlling external equipment. By connecting the equipment to the serial port, it can be controlled by a computer via the network.

\* This product does not provide the interface driver software to control external equipment.



## Operating environment

To perform the managing and setting up the projector using this product, the environment described below is required.

### Operating System

Standard mode\*1 : Windows 98, Windows Me, Windows 2000,  
Windows NT4.0 SP6, Windows XP

### Network

Network must handle Ethernet correctly and accept TCP/IP protocol.

### Computer

The computer must provide a 10Base-T or 100Base-TX network card.

### Web browser application\*

- Microsoft Internet Explorer version 5.0, 5.5 or 6.0
- Netscape Navigator version 6.2, 7.0 or 7.1
  - \* Used to control and set up the projector. The layout of pages in the browser may slightly differ from each type of application or operating system you use.
- Plug-Ins: Macromedia Flash Player version 6,0,79,0(6.0r79) or later

### Internet mail application\*

- Microsoft Outlook
- Microsoft OutlookExpress
- Netscape Mail
  - \* Required the internet e-mail application software to receive an e-mail alert sent from this product. If you do not use the function E-mail Alert, this application is not required.

### PDA restriction

The PDA can be used for the Light mode\*1 only. The operating system of the PDA is PocketPC2002 or higher. The version of the Macromedia Flash Player is 6,0,81,0 or higher.

---

\*1 The "Light Mode" and "Standard Mode" will be explained on item "Display Mode" (p.24-26)

## The limitation<sup>\*1</sup> of connection between this product and hub or computer

Suitable LAN cables are limited by length and type as follows;

Connection	Type of usable LAN cable	Maximum length
Network Unit - Hub	UTP Straight Cable with category 3 or 5 <sup>*2</sup>	100m
Network Unit - Computer	UTP Cross Cable with category 3 or 5 <sup>*2</sup>	100m

\*1 There may be other limitations depending on your network environment or LAN specification. Please consult your network administrator for further details.

\*2 Category of LAN cable indicates the cable quality. Normally, a cable with category 3 or 5 is used for 10Base-T network, and a cable with category 5 is used for 100Base-TX network.

## Before use

### Package contains

The package contains following items. Check each item as you unpack the package. If you have any of the following items missing, contact the sales dealer.



Network Unit 1 piece



Owner's manual 1 piece

## Expression/Abbreviation

The word "projector" found in this manual means "LCD projector provided with Network Unit" unless otherwise noted.

The OS of the computer and the web browser described in this manual is Windows XP Professional and Internet Explorer 6.0. In case of another OS or web browser, some instruction procedures may differ from the actual operation depending on your computer environment.

## Use of this manual

This manual does not provide the description of basic operation and functions for computer, web browser, projector and network. For instructions about each piece of equipment or application software, please refer to the respective booklet.

## Trademarks

Ethernet is a registered trademark of Xerox Corporation. Microsoft, Windows, Windows NT are registered trademarks of Microsoft Corporation. Internet Explorer is a registered trademark of Microsoft Corporation. Netscape Navigator and Netscape Communicator are trademarks or registered trademarks of Netscape Communications Corporation. JavaScript is a registered trademark of Sun Microsystems, Inc. PJLink is a registered trademark of JBMIA (Japan Business Machine and Information System Industries Association).

Other product or brand names in this manual are registered trademarks or trademarks of their respective owners.

\* Unauthorized use of a part or whole of the contents in this manual is prohibited.

\* The contents of this manual are subject to change without notice.

## Chapter 2 Installation

---

Describes how to install the Network Unit, and configure the network.

# 2

## Flow of installation

The following are instructions for attaching this product to the projector and connecting it to the network. Please review the entire procedure to become familiar with it.

### **1** Function of the Network Unit (☞ p.15)

Explains the name and functions of each part of the Network Unit.

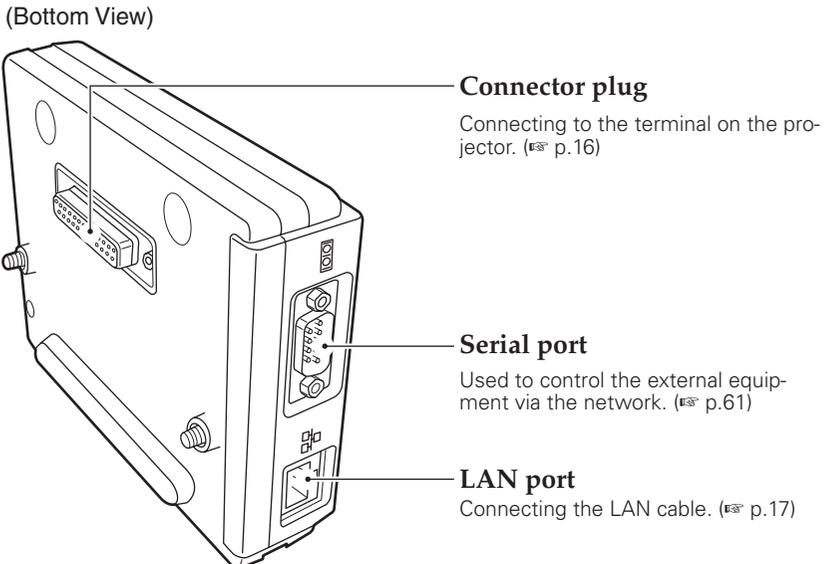
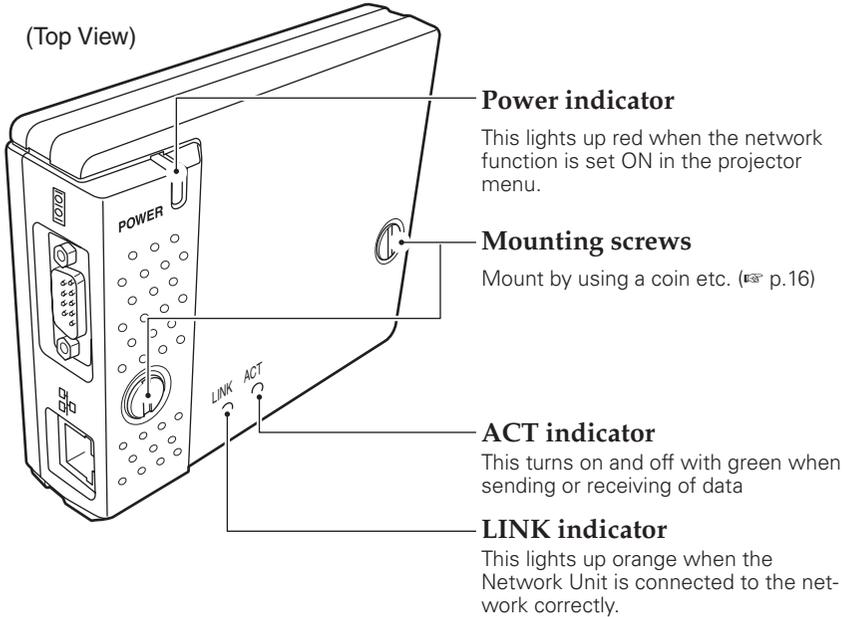
### **2** Installation and network configuration (☞ p.16-22)

- 1** Mount this product onto the projector.
- 2** Connect the LAN cable and join it to the network.
- 3** Configure the network of the Network Unit.
- 4** Set the network PIN code.

Set up is complete

The preparation is complete to control the projector connected to the network. At next step, set up and control the projector via the network by using the web browser installed on your computer. Please see chapter 3 "Basic Setting and Operation". (☞ p.23)

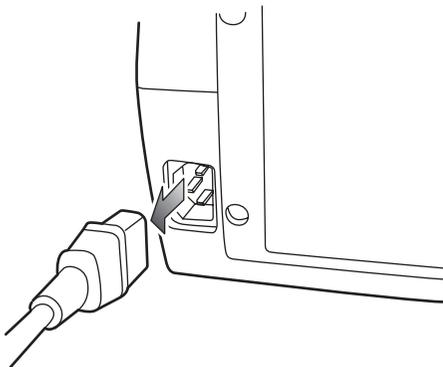
# [1] Name and function of each part



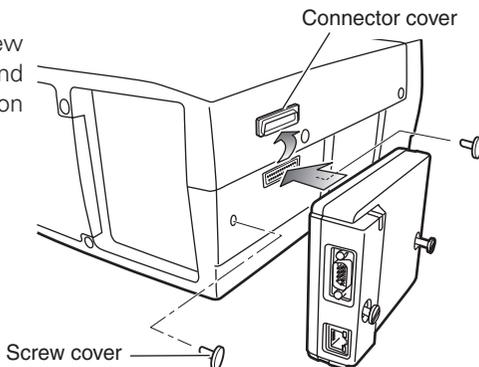
## [2] Installation and network configuration

### Mounting

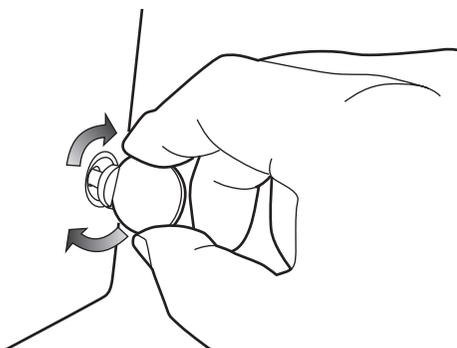
**1** Disconnect the AC plug from the projector.



**2** Remove the connector cover and screw covers (2 pieces) from the projector and insert plug on this product to the option connector.



**3** Tighten two screws by using a coin etc.



**Caution**

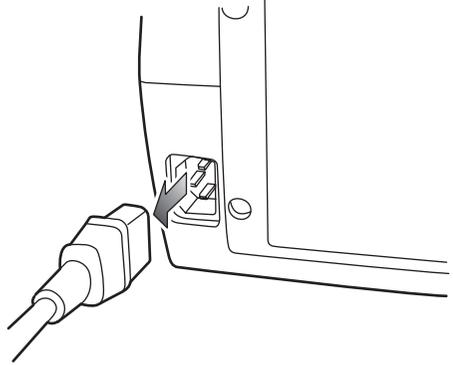
- ⚠ AC cord must be disconnected when mounting or removing this product otherwise it may damage the product.
- ⚠ Do not install multiple Network Units into a projector otherwise it may damage the product.
- ⚠ Connect the AC cord after connecting the LAN cable and computer.

## Connection of LAN cable

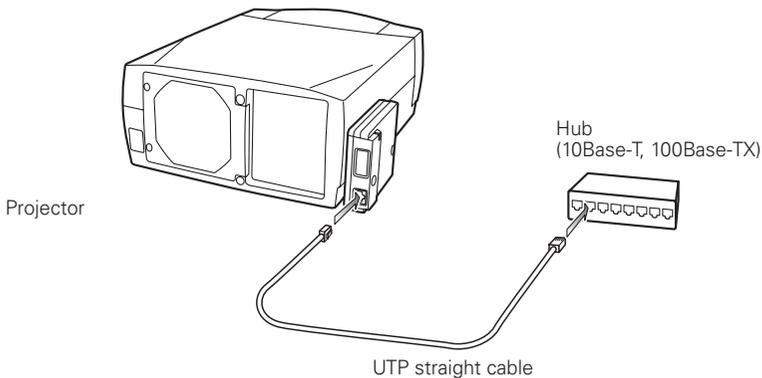
To connect to the network, it is required to use the UTP (Unshielded Twisted Pair) straight cable with RJ-45 plug. There are two different types of cables depending on whether the network is constructed with 10Base-T or 100Base-TX. Prepare the Hub (10Base-T or 100Base-TX) to distribute the network cable if required.

**1** Disconnect the AC plug from the projector.

**2** Connect the UTP straight cable to the LAN port on the Network Unit.



**3** Connect the UTP straight cable to the hub.



- ☞ Use the UTP cross cable when you connect the computer and projector directly not using the hub.
- ☞ When you connect the projector into the 10Base-T network, use cable with category 3 or 5. When you connect the projector into the 100Base-TX network, use cable with category 5.
- ☞ The length of cable between hub and projector should be less than 100m.

## Network configuration

### Confirmation of the network menu

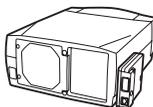
When installing this product to the projector, the network on-screen menu items for this product are activated automatically. If not activated, the product may not have been installed correctly. Please check item "Mounting" (☰ p.16).

### Configure the network

Before performing the network configuration, prepare network address numbers (IP Address, Subnet Mask, Default Gateway, DNS) assigned to the projector. Ask your network administrator for the network address.

For example, the case where the following network address is set up is explained.

IP Address	: 192.168.1.201
Subnet Mask	: 255.255.255.0
Default Gateway	: 192.168.1.1
DNS	: 0.0.0.0



The default network configuration is set as follows.

IP Address	: 192.168.0.2
Subnet Mask	: 255.255.255.0
Default Gateway	: 0.0.0.0
DNS	: 0.0.0.0



### 1 Selection of network menu

Turn on the projector and display the menu on the screen. Select network icon from the main menu and then press **SELECT** button once. Check that the mode is "On". If not, change mode to "On" using the point buttons (◀▶).



## 2 Configuration for IP Address/ Sub net/ Gateway\*1/DNS\*2

Press **SELECT** button again. The following network setting pallet appears on the screen. Enter the specified network addresses.

IP address	192	168	1	201
Sub net	255	255	255	0
Gateway	192	168	1	1
DNS	0	0	0	0
<b>SET</b>		<b>CANCEL</b>		

The red frame moves sequentially left or right with ◀▶ button.  
The number up or down with ▼▲ button.

### How to enter the numbers

There are 2 ways to enter the numbers, one is by using the point buttons (▼▲) on the remote control or on the projector, the other is by using the screen 10-key pallet by which the numbers can be entered directory. For further information see "How to enter the numbers with the screen 10-key pallet" (☞ p.21).

### 3 Fixing the network configuration

After completing the entering of address, select "SET" and press **SELECT** button. The Network Unit starts re-booting and displays message "Please wait..." on the screen until the re-booting is complete. Do not disconnect the AC cord during this period. After that the network setting pallet will disappear on the screen.



Please wait...

### Completing of installation

Now the installation is complete. The IP address of this projector is set to "192.168.1.201".

Item	Description
IP address.....	Sets IP address of the projector
Sub net .....	Sets Subnet mask. Normally sets 255.255.255.0
Gateway*1.....	Sets IP address of the default gateway (Router)
DNS*2 .....	Sets IP address of the DNS server. Must be set when using the e-mail function

\* Refer to the projector's owner's manual for operation of the projector.

\*1 In the network environments not using a Gateway or Router, the Gateway address should be set to [0.0.0.0].

\*2 If you do not use the functions E-mail or DNS server, it is also set [0.0.0.0] for the DNS address.

## Network PIN code setting

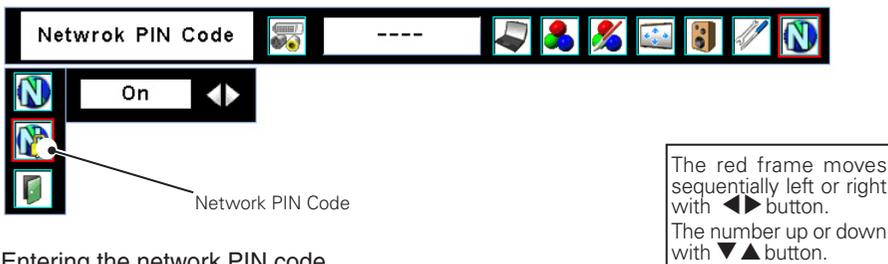
The network PIN code can be set to restrict access to the setting page of the projector using the web browser.

\* Default network PIN code [0000] means no network PIN code is set.

### 1 Displaying network PIN code menu

Select network menu and then select "Network PIN code" sub menu. Press SELECT button twice to display the Network PIN code entry pallet.

\* The number on the pallet is the current network PIN code.

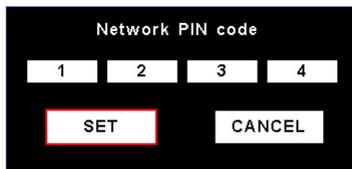


### 2 Entering the network PIN code

To enter the network PIN code, use point buttons (▲,▼,◀,▶) on the projector or the remote control.

### 3 Fixing the network PIN code

After entering a 4-digit number, select "SET" by using point buttons (◀,▶) and then press SELECT button.



🔑 The screen 10-key pallet can be used for entering the network PIN code. See item "How to enter the numbers with the screen 10-key pallet" (☞ p. 21)

🔑 It is recommended to set up the Network PIN code when you connect the projector to the network. This setting is carried out through the projector's menu and also it can be set through the network using the web browser. For further information, refer to item "Initial Setting/Network PIN code setting" (☞ p.29).

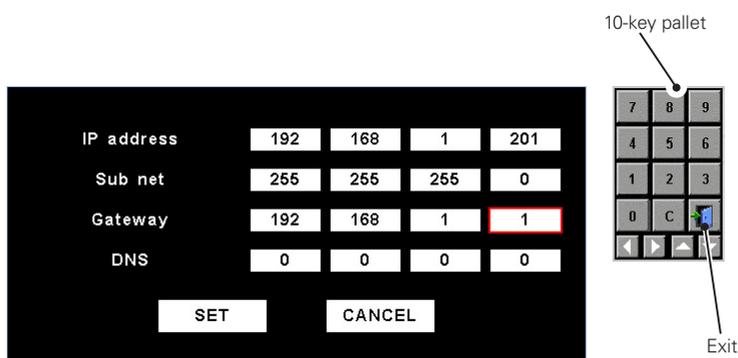
🔑 Valid characters for the network PIN code are only numbers 0 to 9. The number "0000" means no network PIN code is set.

🔑 This network PIN code is not to restrict the use of the projector. This network PIN code is to set the security against the use of the projector through the network.

## How to enter the numbers with the screen 10-key pallet

- 1 Select a column with a red frame by using the point buttons ◀▶.
- 2 Press **SELECT** button. The screen 10-key pallet appears on the screen.
- 3 By using the point buttons(▼ ▲ ◀▶), select numbers 0 to 9 and press **SELECT** button. By repeating the above to enter the complete number on the column.
 

\*To change the number in a column, select "C" and press **SELECT** button to clear the number in the column and then enter the number again.
- 4 After entering the number in the column, select a move key (◀▶ ▲▼) located on the lower part of the pallet by using the point buttons and press **SELECT** button repeatedly to move the red frame.
- 5 Repeat steps 3 to 4 for entering all the network address.
- 6 After finishing, select "Exit" and press **SELECT** button. The 10-key pallet disappears on the screen.



## Notice about system construction

### **For installation of multiple projectors into the same network with Network Unit.**

Do not install multiple projectors with Network Units that have their default network settings to the same network. The use of the Network Units which have the default IP address set to the same network settings will cause IP addresses to collide and create a malfunction. When you install multiple projectors into the same network, configure the network with the following steps.

1. Change the IP address from the default IP address. To change the IP address, use the network setting menu on the projector. Please see item "Network configuration" for further information (☞ p.18).
2. Make sure that there is no network equipment set with the same IP address in the network before connecting to the network.
3. When installing other projectors, follow the above steps to change the IP address and connect to the network.

### **In case of installing the projector with Network Unit into the network constructed with the DHCP/BOOTP server.**

This Network Unit does not support the DHCP/BOOTP server. The static IP address must be manually configured. To use this product in this network environment, set it up so that the DHCP/BOOTP server does not assign the IP address configured to this product for another device on the network. Please consult your network administrator for further information.

# 3

## Chapter 3 Basic Setting and Operation

---

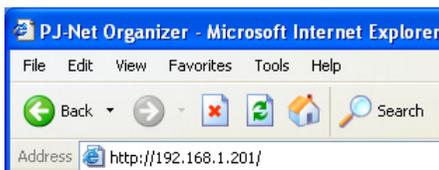
Describes basic operations and settings for controlling the projector by using the web browser. It is required that computer and projector is connected to the network and the network address is properly configured.

# Login the setting page of the projector

## 1 Enter the IP address

Launch the web browser installed in your computer, enter the IP address into the "Address" on the browser and then press "Enter" key.

Enter the address (192.168.1.201) that you configured in item "Network configuration" (p.18). The default IP address is [192.168.0.2].



## 2 Select a display mode and login

This product provides 2 types of control mode, Standard Mode and Light Mode as the below. Select a proper mode to match your PC and network environment by clicking on the text link.



**STANDARD MODE** For computer display, displays graphical menus and settings. This mode is recommended for standard use.

**LIGHT MODE** Displays with 200 x 300 dots. This mode is optimized for use of the handheld computer, PDA, etc. It is also convenient if the network traffic is heavy.

If the setting page has set the password, the authentication window will appear. In this case type "user" onto the **User Name** text area and the login network PIN code onto the **Password** text area and then click **OK** button.

\* The entering User Name must be "user" and it can not be changed.

[Note]

When accessing the projector for the first time or the network PIN code "0000" is set, the auto-login will be performed and the next main setting page is displayed.



### 3 Display of main setting page

The following main setting page will be displayed according to your display mode selection. Perform various kinds of settings through this page. Click on the menus to display the control and setting pages.

#### 1 Main setting page in the Standard Mode display

The screenshot shows the projector's main setting page. The background is blue with various icons for settings like Initial setting, Power & Status, PC Adj., Control, Setting, E-mail setting, Save, Network, Multi control, Timer, Information, and SNMP setting. The 'Control' menu is selected, showing a sub-menu with options: Input, System, Image adj., and Menu. The 'Image adj.' sub-menu is open, showing settings for Contrast (32), Brightness (32), Color (---), and Tint (---). A clock display in the top right corner shows the date and time. A 'TOP' button is visible in the bottom right corner.

**1** Main setting page in the Standard Mode display

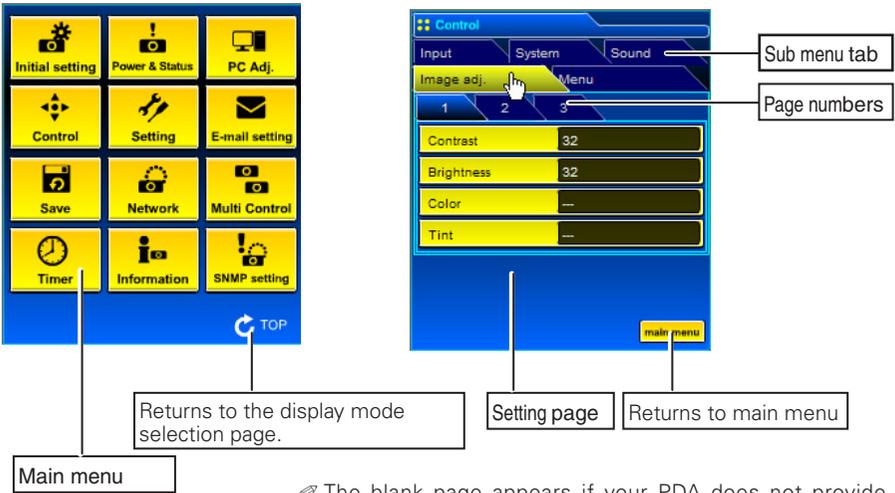
- Clock display**  
Display on or off by clicking text ON or OFF
- Sub menu tab**  
Switches the sub menu tab.
- Page numbers**  
Switches the pages by clicking the number's tab.
- Main menu**  
For selection of control and setting items of the projector.
- Setting page**  
Displays the control and setting items according to the selected menu.
- Returns to Display Mode selection page (p.24)**

This Standard mode display is mainly used through this manual for the setting and control description.

If your computer does not have the Macromedia Flash Player version 6 or later, follow to the message on the control page to install the Macromedia Flash Player. For further product information or installing, see the Adobe homepage. <http://www.adobe.com>



## 2 Main setting page in the Light Mode display



The blank page appears if your PDA does not provide a Macromedia Flash Player. You need to install the Macromedia Flash Player. (p.25)

## How to use the setting page

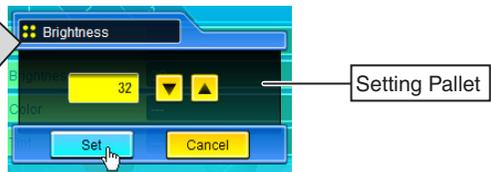
To control and set up the projector, use the setting menus on the web browser. Describes the basic operation and procedures commonly used on this manual.

### Example of the Setting Page



The setting pallet appears when clicking the item. Change the value by clicking ▲ or ▼ button, or type the number onto the text box directory and then click Set button.

\* Each item has a valid setting range respectively.



The value in the text box indicates current value.

Each item has a valid setting range. The setting value exceeding this becomes invalid. Some control items can not be used depending on the selecting input mode or functions of the projector you use. In this case, the values of those items are indicated with "—".

## Type of the setting pallet

### Text box setting

Enter a number or text and then click **Set** button.

or

Change a value with ▲ or ▼ button and then click **Set** button.

The value changes quickly when keeping pressing ▲ or ▼ button.

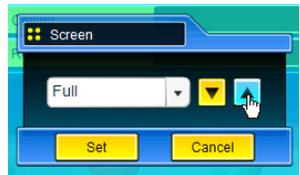
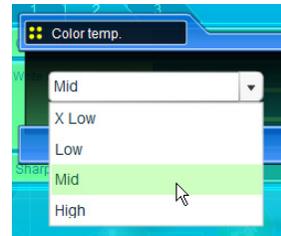


### Pull-down menu setting

Select an item with pull-down menu button and then click **Set** button.

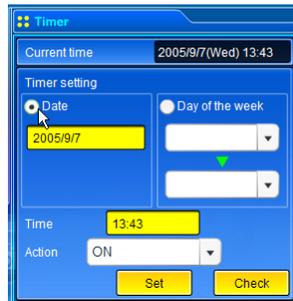
or

Select an item by clicking ▲ or ▼ button.



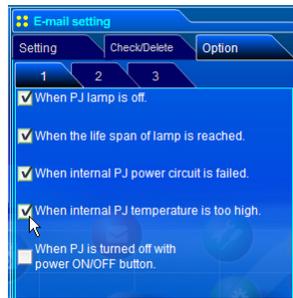
### Radio button setting

Select an item by selecting a radio button



### Check box setting

Select items by ticking on check boxes.





## Initial setting

After installing this product to the projector, perform the following basic initial setting.

Click **Initial Setting** on the main menu to display the initial setting page.

There are two sub menus, Initial setting and Serial Port setting sub menu. Serial Port setting page is used for controlling the external equipment through the RS-232C serial port. For further description of setting and operation, refer to chapter 5 "Use of Serial Port" (p.61)

The model name of the projector on which this product is mounted is displayed on the page.



Item	Description
Language	Switches display language on the setting page. English or Japanese.
Model name	Indicates the model name of the projector provided with the Network Unit
Network PIN code	Sets the network PIN code to login the setting page (p.29)
PJLink	Switches PJLink password authentication on or off (p.29)
Password	Password for PJLink function
Temperature	Switches display temperature unit Centigrade or Fahrenheit

**Caution**

### Use of Battery

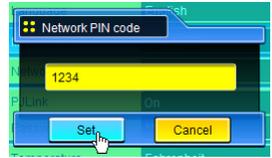
This product provides a lithium battery. When the battery runs down, the clock and timer functions do not operate properly. Contact your local dealer for the replacement of battery. The replacement must be carried out by a qualified service personnel.

## Network PIN code setting

This is to set the network PIN code to restrict the access from an unauthorized person through the network.

Enter a 4-digit number as the network PIN code onto the text box and click **Set** button.

The Network Unit begins restarting and it takes about 20 seconds. Close (Quit) the web browser and access to the login page again in 20 seconds. This is to perform the login authentication firmly. The default network PIN code [0000] means no network PIN code is set.

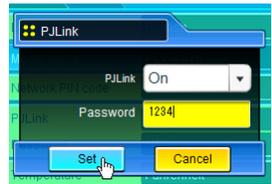


- ☞ When you connect the projector with this product to the network, it is recommended to set a new network PIN code. Only a four-digit number is valid for the network PIN code.
- ☞ If you forget the network PIN code to the projector, you can check it by selecting "Network PIN code" sub menu from "Network" menu on the projector. For further information, please see item "Network PIN code setting" (p. 20).

## PJLink and password setting

This is to set the PJLink password authentication on or off. If set "On" with the PJLink pull-down menu, the password must be required. Enter a *password*\* onto the text box and click **Set** button.

\* 1 to 32 alphanumeric characters can be used for the password.



## What's PJLink?

The projectors equipped with PJLink function can be used together on the same network, regardless of model or brand, for centralized control and monitoring. This standard was established by the Japan Business Machine and Information System Industries Association (JBMIA).



Item	Description
Time setting .....	When clicking <b>AUTO</b> button, the time which is set on your computer is set to the Network Unit.
Date .....	Sets date in manual
Time .....	Sets time in manual

## Date and time setting

### Auto setting

Click **AUTO** button on the page, the time which is set on your computer is set to the Network Unit.

Note:

Confirm that your computer has a correct clock time before performing the auto time setting.

### Manual setting

Click item **Date** or **Time** and enter date or time on the input box with adequate format.

Date is in year/month/day format.

ex. 2005/09/07

Time is in 24-hour:minute format.

ex. 14:20





## Network configuration

Click **Network** on the main menu. The following setting page is displayed. This page is to set the IP Address, Subnet Mask, Default Gateway, DNS (Domain Name Server) and projector name.

The IP address and Subnet Mask have been configured already in chapter "Installation". If you want to change them or configure default gateway or DNS, perform them in this page.

The Network Unit begins restarting and it takes about 20 seconds. Close (Quit) the web browser and access to the login page again in 20 seconds.



Item	Description
------	-------------

IP address .....	Sets IP address of the projector
Subnet mask.....	Sets Subnet mask. Normally sets 255.255.255.0
Default gateway* <sup>1</sup> .....	Sets IP address of the default gateway (Router)
DNS* <sup>2</sup> .....	Sets IP address of the DNS server. Must be set when using the e-mail function
PJ name* <sup>3</sup> .....	Sets name of the projector. (64 characters maximum)

☞ You must use the number specified by your administrator. The address must be entered as a group with four numbers split by a dot like [192.168.001.101].

\*1 Set [0.0.0.0] if the network does not provide the gateway (router).

\*2 Set [0.0.0.0] if you do not use the function E-Mail alert.

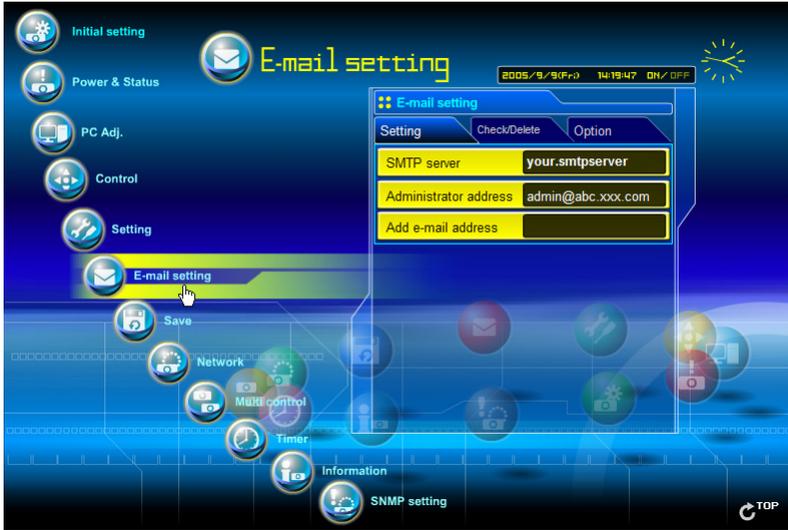
\*3 If you use the DNS server, register the host name registered to the DNS server as a projector name. You can access with this projector name from any computers in your network. If you do not use the DNS server, access with the assigned IP address to the projector.

\* All the network setting will reset to the default when setting [0.0.0.0] of the IP Address.



# E-mail setting

This product has an E-mail function which can send an alert message to users or an administrator if it detects an abnormality on the projector or run out of the life span of the lamp. Click **E-mail Setting** on the main menu and follow the below steps.



Item	Description
SMTP server*1	.....Sets server name or IP address of the SMTP server Administrator
address	.....Sets e-mail address of administrator
Add e-mail address	.....Sets e-mail address of the user to send mail when the projector has an abnormality.

## 1 Setting SMTP server and administrator address

Set the server name or IP address of the SMTP server\*1 and administrator address. The administrator address is set to "Reply-To" address of the message sent from the projector.

\*1 The SMTP server is a server for sending E-Mail. Please contact your network administrator to have this SMTP server address.

☞ If the Network Unit sends an alert message due to the abnormality on the projector but the SMTP server is down in some other reason, the message will not be sent. In this case, the message "Unable to connect to server." will be displayed on the setting page. To clear this message, set up SMTP server address again.

- ☞ To use the E-Mail function, it must be set the DNS address on the Network setting page correctly.
- ☞ You cannot use this E-mail function if the DNS server and SMTP server cannot be used in your network environment.

## 2 Registering and deleting E-mail addresses

Click "Add e-mail address" and type the e-mail address onto the text box and click **Set** button. To check the registered addresses, click **Check/Delete** sub menu tab. The addresses are listed as the figure on the right.

✎ Up to 10 E-mail addresses can be registered.

To delete the registered addresses, check the address you want to delete and click **Delete** button.

## 3 Option selection for sending alert mail

Click **Option** sub menu tab. Check the condition items under which alert mail will be sent and click **Set** button.

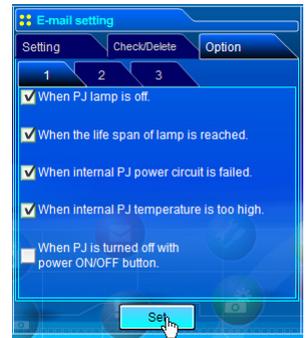
Please refer to item "Examples :Type and contents of alert mail" described on the next page.



Check / Delete



Option



- [1] \_\_\_\_\_
- When PJ lamp is off.
  - When the life span of lamp is reached.
  - When internal PJ power circuit is failed.
  - When internal PJ temperature is too high.
  - When PJ is turned off with power ON/OFF button.

- [2] \_\_\_\_\_
- When Power management function turns PJ lamp off.
  - When the signal is interrupted.

- [3] \_\_\_\_\_
- When lamp Corres. Value reaches [     ] hours.
- Attached message

✎ The length of message should be less than 256 characters.

✎ Up to 99,999 hours can be set for use time.

## Examples: Type and contents of alert mail

When the projector has an abnormality, the following alert messages are sent to the registered E-mail address according to your selected condition. Administrator or user can take an efficient action quickly by receiving this message. This is very useful to maintain and service the projector.

The following are examples of received messages.

### ● When internal PJ temperature is too high:

```
TITLE: Message from projector
10-03-2005 00:59
Projector Model Name: model name
TCP/IP: 192.168.1.201 Projector Name: Proj05

It sends you following message.

*The Projector lamp is turned off, because internal Projector temperature is too high.
Wait for Temperature Warning Indicator turned off, and then turn the Projector on again.
If the Indicator continues flashing, check the air filter for dust accumulation.

[A] 81.5 degrees fahrenheit [B] 134 degrees fahrenheit [C] 95.6 degrees fahrenheit
Temperature of Sensor B is too high.
```

☞ The Network Unit let users know the information which thermal sensor [A], [B] or [C] inside the projector detected the abnormal temperature risen and so the projector was turned off. Please refer to item "Power control and status check" (p.40) for the location of the sensors and each temperature. Also see the owner's manual of the projector for further details.

### ● When internal PJ power circuit is failed:

```
TITLE: Message from projector
10-03-2005 00:59
Projector Model Name: model name
TCP/IP: 192.168.1.201 Projector Name: Proj05

It sends you following message.

*The Projector lamp is turned off, because Projector power circuit failed.
Unplug the Projector from AC outlet and ask servicing to qualified service personnel.
AV,      -5V   OK
AV,      S5V   OK
PJNET,   S5V   OK
ANALOG,  6V   NG
.....   ....   ....

```



☞ The projector lamp was turned off, because the projector power circuit failed. Unplug the projector from AC outlet and ask servicing to a qualified service personnel with the error information.

## ● When the life span of lamp is reached:

TITLE: Message from projector  
 10-03-2005 00:59  
 Projector Model Name: *model name*  
 TCP/IP: 192.168.1.201 Projector Name: Proj05

It sends you following message.

\*The life-span of lamp is reached.  
 Lamp replacement is required.

- ☞ Replace it with a new lamp immediately and reset the lamp counter. If the projector is used without resetting the lamp counter, the alert mail is sent to users in every power-on of the projector. This alert mail will not be sent when unchecking the mail sending condition "When the life span of lamp is reached".

## ● When lamp corres. value reaches preselect use time:

TITLE: Message from projector  
 10-03-2005 00:59  
 Projector Model Name: *model name*  
 TCP/IP: 192.168.1.201 Projector Name: Proj05

It sends you following message.

\*The accumulated lamp use time reaches 400 hours.  
 Prepare for the lamp replacement.

Free messages

- ☞ The Network Unit sends a free message when the lamp use time (Corresponding value) reaches the preselected lamp use time. It can be used for preparation of the lamp replacement and the maintenance required.



# SNMP setting

This product provides a SNMP (Simple Network Management Protocol) agent function. The SNMP consists of a manager and agents. The group which communicates information each other with SNMP is called "Community". There are two access modes in a community, Refer (read only) and Set (read- write). This product allows to use Refer (read only) only. The SNMP message informs the projector status called "Trap" to an administrator. Click **SNMP Setting** on the main menu and set up each item.



PJ information

Item	Description
Contact .....	Enter user name of the projector etc. (optional)
Place.....	Enter place of the projector (optional)
Community name(refer) .....	Enter community name (read only). Default name is "public".



## Trap

Item	Description
------	-------------

Community name ...	Enter community name to send "Trap". Default name is "public".
--------------------	--

Trap address.....	Enter IP address of the SNMP manager computer to receive "Trap".
-------------------	--



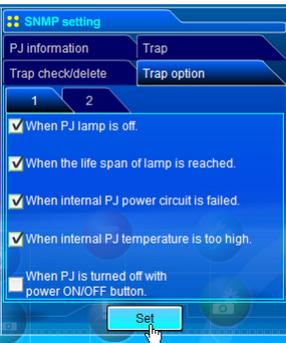
## Trap check/delete

## Check and delete the trap address

Checking the registered trap address and deleting the address.

To delete the address, tick check box in front of the IP address and click **Delete** button.

☞ Up to 10 trap addresses can be registered.



## Trap option

## Trap option setting

Tick check boxes in front of the condition item to send the trap.

☞ Click **Set** button if you tick or un-tick the check box on a page.

- [1] \_\_\_\_\_
- When PJ lamp is off.
  - When the life span of lamp is reached.
  - When internal PJ power circuit is failed.
  - When internal PJ temperature is too high.
  - When PJ is turned off with power ON/OFF button.

- [2] \_\_\_\_\_
- When Power management function turns PJ lamp off.
  - When the signal is interrupted.
  - When lamp Corres. Value reaches [ ] hours.

☞ Up to 99,999 hours can be set for the time setting.



# 4

## Chapter 4 Controlling the Projector

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Describes controlling and setting of the projector by using the web browser.



## Power control and status check

Click **Power & Status** on the main menu. The control page will be displayed.

By clicking **ON** or **Standby** button on the page, the power of the projector can be controlled.



Popup confirmation window

Item	Description
------	-------------

**PJ status**

- Power ..... Displays the status of the lamp. (ON, OFF, On starting up, On cooling down)
- Status ..... Displays the status of the projector's power. (Refer to next page.)
- Power control ..... Controls the projector power by clicking the "ON" or "Standby" button.

**PJ temp.**

- Inside temp.A ..... Displays the surrounding temperature of lamp in the projector. (Sensor A)
- Inside temp.B ..... Displays the surrounding temperature of panel in the projector. (Sensor B)
- External temp. .... Displays the surrounding temperature of the intake vent. (Sensor C)
-  ..... The warning icon will appear if the temperature exceeds a specified value. Check if there is no object to obstruct the airflow around the intake or exhaust vent. It might be airfilter clogged. Clean up the airfilter.

\* The temperature unit can be set either Centigrade or Fahrenheit in item "Initial Setting". (p.28)

## About projector condition

Status	Description
Normal	Projector is operating normally.
Power management in operation	Power management is operating
Lamp failure	Lamp failure is occurring
Abnormal Temperature	The temperature of the projector became too high
Cooling down after Abnormal Temp.	Projector detects abnormal temp. and is cooling down itself.
Standby after Abnormal Temp.	Projector detects abnormal temp. and sets into standby mode.
Power failure	Power failure has occurred inside the projector. Projector is turned off. Disconnect the AC cord and ask servicing to a qualified service personnel. If the power failure occurs on the projector, "Power failure" is indicated on the status column and the information icon appears on the power column as shown below. Click this icon to display further information of the power failure.



When a security (PIN code lock) has been set on the projector, you also cannot control it through the network. To control the projector through the network temporarily, execute "PJ lock suspend" command to unlock the security. "PJ lock suspend" is on setting sub menu [3] on Setting main menu. (p.48)

- The projector cannot be turned on during the projector is on cooling down.
- The web browser checks and updates the projector's condition every 30 seconds automatically.



# Controls

Click **Control** on the main menu. The setting method differs depending on the contents of the page. Click on the page number to change pages and select desired setting items.

Please see the owner's manual of the projector to have the further information of each control item.



## Input

This function is to select the input mode and source mode of the projector. Click **Set** button after selecting the input and source mode.



Item	Description
Input .....	Selects input mode of the projector. (1 to 3)
Source .....	Selects signal source of the input.
Input 1 :	RGB(PC analog) RGB(Scart) RGB(PC digital) RGB(AV HDCP)
Input 2 :	Video Y,Pb/Cb,Pr/Cr RGB
Input 3 :	Video Y,Pb/Cb,Pr/Cr S-video

The control page displays valid control items depending on the selected input mode, signal or functions of the projector you use, therefore, there may be different controls between the described items and actual control items on the page display. For further information, refer to the projector's owner's manual.

When the projector is in standby, only the timer on the setting menu is effective; others are inactive.

## System

This function is to select the system of signal input to the projector. The available system mode are listed on the pull-down menu according to the input signal. Select a system and then click **Set** button.



### Available selection when the Computer[Analog] input

Item	Description
XGA1 .....	It automatically switches to the proper computer system of the input signal. * The computer system modes (VGA, SVGA, XGA, SXGA, UXGA, WXGA...) which meet the input signal are listed.
☞	If the mode (Mode1 to Mode 10, ExMode11 to ExMode50) which is stored in the item "PC Adjustment" (☞ p.46) is available, they are also listed together with the above mode.

### Available selection when the VIDEO/S-VIDEO input

Item	Description
AUTO .....	It automatically switches to the proper color system of the input signal. * The selectable color systems are PAL, SECAM, NTSC, NTSC4.43, PAL-M and PAL-N.
☞	If the mode (ExMode11 to ExMode50) which is stored in the item "PC Adjustment" (☞ p.46) is available, they are also listed together with the above mode.

### Available selection when the Y, Pb/Cb, Pr/Cr input

Item	Description
AUTO .....	It automatically switches to the proper scanning system of the input signal. * The selectable scanning systems are 480i, 575i, 480p, 575p, 720p, 1035i and 1080i.
☞	If the mode (ExMode11 to ExMode50) which is stored in the item "PC Adjustment" (☞ p.46) is available, they are also listed together with the above mode.

## Image adjustment

This function is to adjust the projected picture image and save the image mode. To store the adjusted value, click **Store** button, and to load the adjusted value, click **Load** button.



Item	Description
Contrast	Adjusts picture contrast (0~ 63)
Brightness	Adjusts picture brightness (0~ 63)
Color	Adjusts picture color saturation (0~ 63)
Tint	Adjusts picture hue (0~ 63)

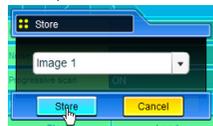


Item	Description
Color Temp.	Sets a color temperature mode. (X Low, Low, Mid, High, Adj.)
White Balance	Red, Green, Blue
	Adjusts each white balance respectively. (0~ 63)
Sharpness	Adjusts picture sharpness. (0~ 31)

\* When changing the value of the white balance, the color temp. indicates "Adj."



Item	Description
Gamma	Adjusts brightness of darker part of the picture. (0~ 15)
Noise reduction	Switches noise reduction mode (OFF, L1, L2)
Progressive scan	Switches progressive mode (ON, OFF, Film)
Reset	Resets the Image adjustment to previous levels.
Store	Stores the Image adjustment values. Select an item [Image1 - Image10] from the pull-down menu and click Store button.



Load	Loads the Image mode. Select an image mode from the pull-down menu and click Load button. There may not be available mode depending on the input mode as shown in the table left.
------	---

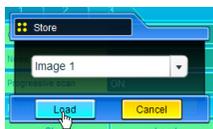


Image mode	Input source	
	Video	Computer
Standard(AV)	✓	*
Cinema	✓	*
Standard(PC)	*	✓
Real	*	✓
Image1 - 10	✓	✓

ⓘ The mark "✓" means that the available image mode in the selected input source. The error message appears when selecting the disabled image mode indicated with "\*".

## Sound

This function is to adjust the sound of the projector. The values in the text box represent the current control value or status.



Item	Description
Volume.....	Adjusts the sound volume from the speakers.(0 ~ 63)
Mute.....	Suppresses the sound. (ON, OFF)

## Menu

This function is to control the On-screen menu of the projector. Switches menu on/off, moves menu selection (cursor) and selection.



Item	Description
Display.....	Switches the on-screen display menu on or off by clicking <b>ON</b> or <b>OFF</b> button.
Cursor.....	Moves cursor selection by clicking ◀, ▶, ▲ and ▼ buttons and executes the selected menu item by clicking ■ button.



## PC adjustment

Click PC Adj. on the main menu. This function is to adjust the signal from the computer connected to the projector to obtain the proper picture image on the screen.



Item	Description
Current mode	..... Displays a current mode like VGA, SVGA, XGA, SXGA, UXGA, WXGA, etc. or MODE1 - MODE10, EXT11 - EXT50 which are the customized mode created by using the "Mode Store" function described below.
Auto PC adj.	..... Performs automatic adjustment.
Fine sync	..... Performs Fine Sync adjustment.(0 ~ 31)
Total dots	..... Adjust the number of total dots in the horizontal period.
Clamp	..... Adjusts the phase of the clamp. (1 ~ 255)
Display area	
Horizontal	..... Adjusts the image area horizontally.
Vertical	..... Adjusts the image area vertically.



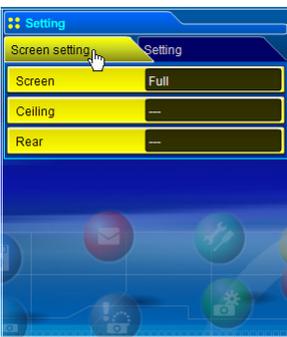
Item	Description
Position	
Horizontal	..... Adjusts the horizontal position of the screen.
Vertical	..... Adjusts the vertical position of the screen.
Reset	..... Resets the PC adjustments to the previous levels.
Mode Store	..... Stores the PC adjustment values. Select a mode no. [Mode1 - Mode10, ExMode11 - ExMode50] from the pull-down menu.
Mode Free	..... Clear the PC adjustment values. Select a mode no. [Mode1 - Mode10, ExMode11 - ExMode50] from the pull-down menu.

Up to 60 characters can be used for the Memo of ExMode11 to ExMode50.



## Setting up the projector

Click **Setting** on the main menu. This function is to set up the projector. Select the sub menu [Screen setting] or [Setting] and then set up each setting.



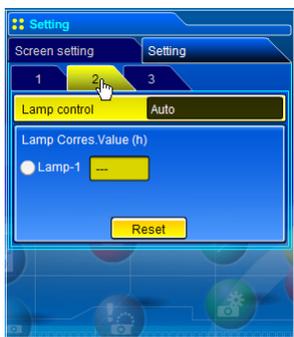
Item	Description
Screen	Switches the screen mode. (Full, Zoom, Normal, Natural wide, True) There may not be available mode depending on the input mode as shown in the table below.
Ceiling	Sets the image top/bottom and left/right reversed. (ON, OFF)
Rear	Sets the image left/right reversed. (ON, OFF)

Screen mode	Input source	
	Video	Computer
Full	✓	✓
Zoom	✓	*
Normal	✓	✓
Natural wide	✓	*
True	*	✓

☞ The mark "✓" means that the available screen mode in the selected input source system. The error message appears when selecting the disabled screen mode indicated with "\*".



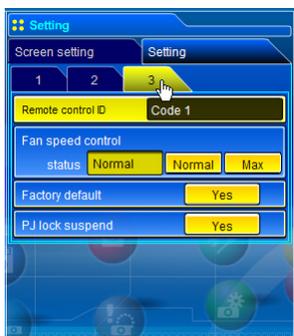
Item	Description
Logo .....	Sets on or off the logo display on the screen during the startup. (Default, My logo, OFF)
Background .....	Sets screen background to blue when no signal input. (Blue, My logo, Black (OFF))
Display .....	Switches on or off the on-screen menu display on the screen.(ON, OFF, CountdownOff)
Freeze.....	Sets the image to freeze mode.(ON, OFF)
Power management.....	Sets into the selected power management mode (OFF, Ready or Shut down) if the input signal is interrupted and no control key is pressed for the specified period of time. *The specified time can be set 1 to 30 min.
On start.....	Sets the power-on mode when connecting the AC cord to the outlet. (ON, OFF)



Item	Description
Lamp control* ....	Selects lamp control mode. (Normal, Eco, Auto) This function may be disabled depending on the projectors.
Lamp Corres. Value(h).....	Displays the lamp use time (Corresponding value). Reset the time after lamp replacement.

**Lamp Corres. Value Reset**

1. Select a Lamp-1 radio button and then click **Reset** button.
2. Click **OK** button to execute the reset.



Item	Description
Remote control ID.....	Sets the remote control ID.(Code 1 - Code 8)
Fan speed control.....	Sets the fan control speed. (Normal, Max)
Status .....	Indicates the current fan mode.
Factory default....	Sets all of the projector control items to the factory default setting except the following items. Lamp Corres. Value, PJ time, Network PIN code, Network setting * This function is not effective for the settings of the network unit, Network address settings, e-mail settings, etc.
PJ lock suspend.....	When the projector has a security of PIN code lock, disable this function temporarily by pressing <b>Yes</b> button.

**Setting procedure**

1. Turn off the projector , disconnect AC cord from the outlet and then connect AC cord again.
2. Access this page with the web browser,
3. Click **Yes** button on the PJ lock suspend.  
\* This function is disabled after the projector turns on.



## Save the controls and settings

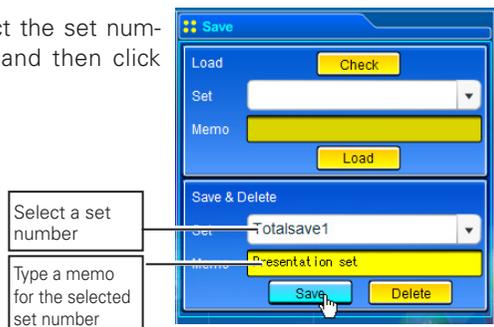
This page is to save and load the controls and settings of the projector in the block. The storable items are "PC adjustment", "Control" and "Setting".



### Save/delete the settings

- 1 Click Save menu on the main menu.
- 2 Select a set number (Totalsave1 to Totalsave10) you intend to store current settings with the pull-down menu button of the item **Save & Delete**. Name this set number onto the Memo text area.  
\* Up to 18 characters can be used for the Memo.
- 3 Click **Save** button to store the current setting and name into the selected set number.

To remove the saved setting, select the set number with pull-down menu button and then click **Delete** button.



☞ You can store up to 10 (Totalsave1 to Totalsave10) sets of settings into the Network Unit.

## Check the saved items

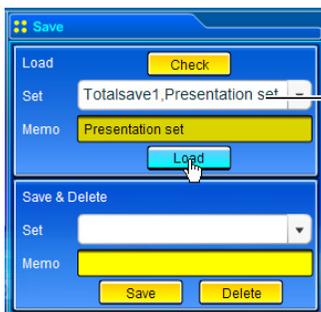
Click **Check** button to check the current setting condition of the controls. Each item of "PC adj.", "Control" and "Setting" is displayed sequentially.



Click Stop button to cancel the auto page display.

## Load a control set

Select your desired set number (Totalsave1 to Totalsave10) with the pull-down menu button of **Load Set** and then click **Load** button. The setting values of the selected set number are applied to the current settings.



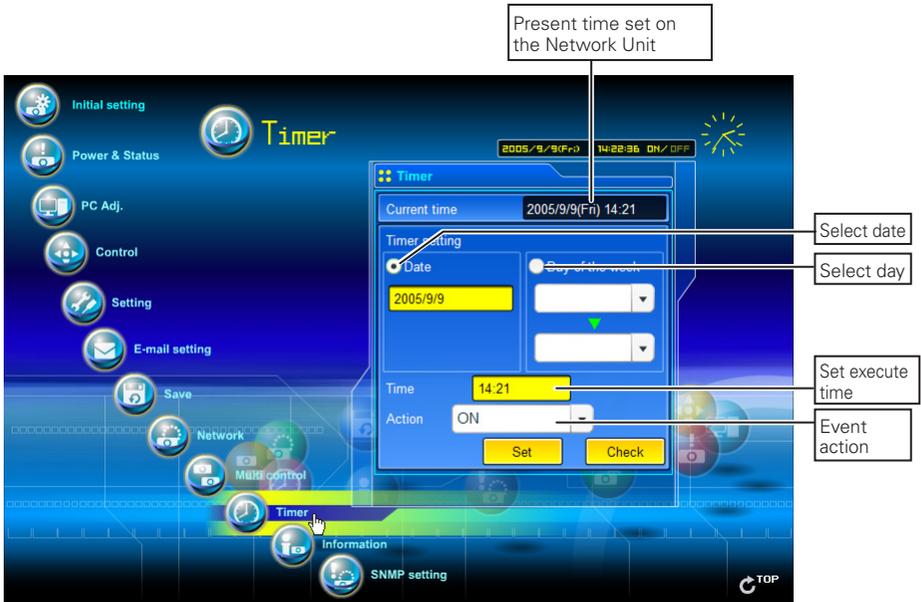
Select a set number

⚠ If the contents of the saved set are not matched for the inputs equipped on the projector, the invalid alert message may be displayed.



## Timer setting

This page is to set the timer to turn the projector off or on at a programmed day/date and time. Follow the steps below for setting. Click **Timer** on the main menu.



### How to set the timer

#### 1 Set a day or date

To set the timer event at same time everyday or every week, Select **day** entry with radio button and then select desired day with the pull-down menu button.

The selectable days are as follows:

- Same time everyday
- Every week ( a day from Monday to Sunday)

To set the timer event on specified date, select **date** entry with radio button and then type the date with (Year/Month/Date) format.

Ex.: Type [2005/12/20] if you specify [December 20, 2005].

## 2 Set an execute time

Type the time with (Hour:Minute) and 24 hours format.  
 Ex.: Type [18:25] if you specify [PM 6 o'clock and 25 minutes].

## 3 Select an event action

Select an event action from the pull-down menu.

Event	Action
ON.....	Turns on the projector
OFF .....	Turns off the projector
Lamp Auto.....	Changes lamp mode to "Auto"
Lamp Eco .....	Changes lamp mode to "Eco"
Lamp Normal.....	Changes lamp mode to "Normal"

\*Available events depends on the projector function.

## 4 Register an event

Click **Set** button to register the set timer event. Repeat steps 1 to 4 for another timer event setting.

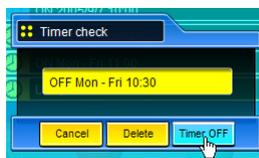
## Check the timer events

To check the set timer events, click **Check** button. The timer events are listed. The event with blue background color represents the timer-OFF event.



## Change the event mode

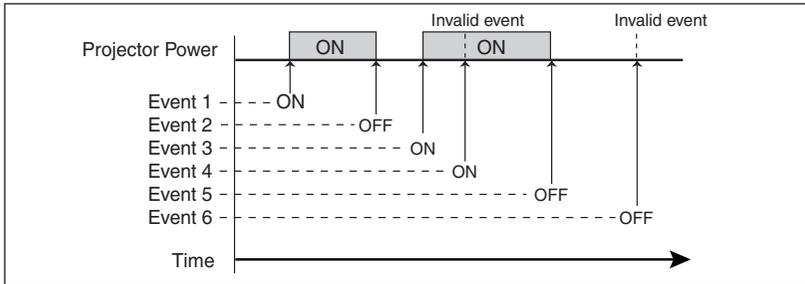
On the event list appearing by clicking **Check** button, click on the event you want to delete, disable or enable. Click **Cancel**, **Delete**, **Timer ON** or **Timer OFF** button on the popup pallet.



Button	Operation
Cancel .....	Cancel the setting
Delete .....	Deletes the timer event
Timer OFF .....	Disable the timer event temporarily
Timer ON .....	Enable the timer event

## Notes on timer setting

Up to 10 timer events can be registered. Timer events always operate according to the next valid event depending on the projector's power status. In the example below, event 3 turns on the projector so next event 4 (also turning on projector) will not be effective because the projector is already turned on. Similarly, when the projector is turned off by event 5, event 6 OFF will not be effective in turning it off again. But these secondary events (event 4 and event 6) will become effective if a person turns off the projector (after event 3 and before event 4) or turns on the projector (after event 5 and before event 6).



- When the timer events are set at the same time, the last event set will override the previous events. For example, if there is an event like "ON at 8:00 everyday" and then new event is set like "OFF at 8:00 everyday", only the last setting event is effective.
- When the timer event ON occurs during cooling down period, this is invalid event because the projector cannot be turned on during this cooling down period.

The timer operates by using the clock function provided in this product. Before setting the timer, please confirm that the current date and time are set correctly. Timer and clock functions are functioning using a lithium battery provided in this product. When the battery runs down, the clock and timer functions will not operate correctly. Consult your local dealer for the replacement of battery. The replacement must be carried out by a qualified service personnel.



# Projector information

This page is to display the basic information of the projector status. Click **Information** on the main menu.



Click this button to update the information

Items	Description
Input .....	Displays selected input and source.
System.....	Displays selected signal system.
Signal.....	Input signal status (Yes, No)
Screen .....	Displays screen mode.
Lamp status.....	Displays lamp status with an animation. Refer to the table on the next page.
Security .....	Displays the security status (Yes, No)

## Indication of the lamp status

Icon display/background	Status
 White-Yellow/Blue	Lamp on (Normal)
 White-Yellow/Red	Lamp on (Lamp is being used over a specified use time, replace lamp immediately)
 Gray/Blue	Lamp off (Normal)
 Gray/Red	Lamp off (Lamp is being used over a specified use time, replace lamp immediately)
 Red/Blue with X	Lamp failure (Lamp failure, check lamp condition)
 Red/Red with X	Lamp failure (Lamp failure and lamp is being used over a specified use time, replace lamp immediately)



Items	Description
PJ time.....	Displays the accumulated use time of the projector.
Lamp Corres. Value.....	Displays the use time (Corresponding value) of the lamp.
Timer .....	Displays the timer setting status. ON Timer has been set. OFF No timer setting.



# Multi-control

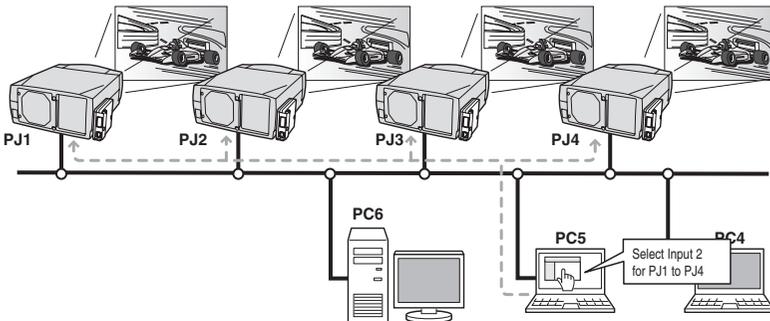
## Controlling and setting the multi-projectors

This function enables you to control the multiple projectors equipped with the Network Units that are connected to the network. Click **Multi Control** on the main menu to display the control page.

**Note:** To control the multiple projectors, each projector must have the same Network PIN code.



### Example of multi control



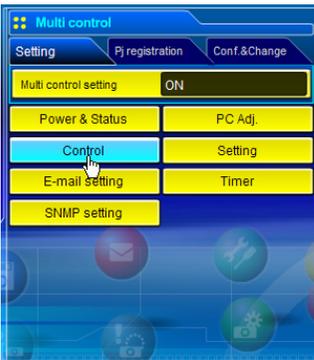
## Start/stop the multi control

To start or stop controlling the multi-projectors, click Multi control setting menu and select ON or OFF.

### Multi control setting

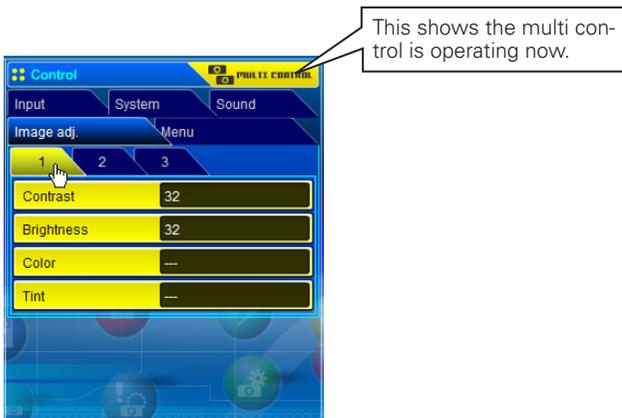
OFF .....Stops multi control function

ON .....Starts multi control function. The multi control menu will appear when setting ON. These items of menu are linked to the main menu.



The multi controllable menus are "Power & Status", "PC adjustment", "Control", "Setting", "E-mail setting", "Timer", and "SNMP setting". Click each menu and perform setting and adjustment.

✎ The word "MULTI CONTROL" appears on the each control page during the multi control is operating.



## Register the projector

To use the multi control function, register the IP address of the projector you intend to control. Click **PJ registration** sub menu tab and set the IP address and Memo, then click **Set** button.



Items	Description
IP address .....	Enter IP address of the projector to control
Memo.....	Enter projector name or installed location etc.

## Confirmation of registered projector

To check the registered information, click **Conf. & Change** sub menu tab. The registered information of the projector is listed as the below.

\* The word "None" is displayed if not using the "Memo" function.

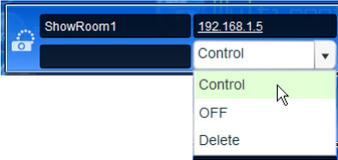
\* When you click on a listed IP address, the login page for the selected projector will be displayed with a new window.



10 projectors per a page can be registered and up to 100 sets can be registered for the multi-control.

## Change the mode of the registered projector

To change the mode of the registered projector, select a mode with the pull-down menu button under the IP address of the target projector and then click **Set** button.



Mode	Operation
Control .....	Multi-controlling the projector
OFF .....	Excluding from the multi-control
Delete .....	Deleting from the multi-control

\* This function is not available with the Light mode.

## Status

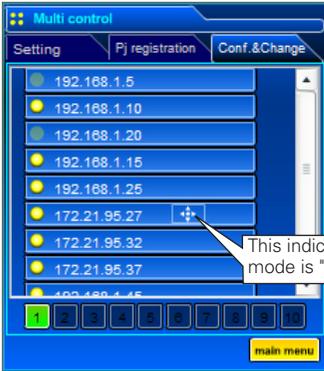
If some of the registered projectors are disabled by some reasons (such as disconnecting the power source, disconnecting the LAN cable, disconnecting from the network), control changes will continue to be effective for the projectors that are still active. At the same time, the deactivated projectors are excluded from the multi-control. The status of the registered projectors are indicated under the projector name. See the table below for status indications.



Status	Description
(blank).....	The projector is connected to the network correctly
No connect.....	The projector may not be connected to the network. Please check the connection and network configuration of this projector.
PIN code error .....	The PIN code is incorrect. The PIN code for the multi-controlled projectors must be the same. Change the PIN code of this projector to the common PIN code.

\* The Network Unit updates the status at the time when the multi-control function was executed.

- ☞ If the multi-controlled projector is in the standby mode, any change is not effective except timer setting.
- ☞ It is recommended that a specified projector should be chosen for setting as a master when you use this multi-control function. The control for the multi-controlled projectors will become too complicated operation if this function is used for each projector.
- ☞ If the registered projector is not connected to the network, it will take some time to complete the multi-control operation because of waiting for the response from each registered projector.



## Conf. & Change page in the light mode

Following functions in the "Conf. & Change" page are not available in the light mode.

- Changing the control mode.
- Deleting the registered IP address
- Indicating the each status
- Indicating the each memo

(Conf.&Change page in the light mode)

## Controlling all together

"Power & Status", "PC adjustment", "Control" and "Setting" can be controlled all together. Set "ON" the multi control setting and adjust controls of each menu. The setting value is applied to the registered projectors sequentially .

☞ This is effective only if the mode of the registered projector is set to "Control".



## Setting all together

"E-mail setting", "SNMP setting" and "Timer" can be set all together. Set "ON" the multi control setting and items of each menu. The setting value is applied to the registered projectors sequentially.

☞ This is effective only if the mode of the registered projector is set to "Control".



# 5

## Chapter 5 Use of Serial Port

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Describes controlling the external equipment connected with the RS-232C port.

This product provides a serial control port (RS-232C) to control the external equipment through the serial cable. This function allows you to control the external equipment connected to the serial port on the Network Unit through the network, and control the projector through the serial cable with the external serial controller. Before connecting the external equipment, perform the setting "Serial Port setting" described below.



## Serial port setting

This is to set up the serial port on the Network Unit. Display the setting page by clicking **Serial Port setting** sub menu in the **Initial setting** menu. To communicate with external equipment correctly, communication condition must be set up to the same values as that the connected equipment is using. When clicking on any item of the serial port setting, the setting pallet appears and set up each item and then click **Set** button\*1.



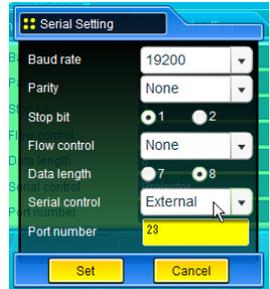
Item	Description
Baud rate .....	Communication speed for serial port, select with the pull-down menu (300 ~ 115200)
Parity .....	Parity check, the ways for error detecting of the transferred data (None, Odd, Even)
Stop bit .....	Stop bit, Select the end of communication (1 or 2)
Flow control .....	Ways for communication flow (None, Xon/Xoff, RTS/CTS)
Data length .....	Selects the length of data (7 or 8)
Serial control .....	Selects equipment to control (External or Projector)
<b>External</b> .....	Used to select when the external equipment connected to the serial port is controlled by the computer through the LAN port.
<b>Projector</b> .....	Used to select when the projector is controlled by the serial controller connected to the serial port.
Port number .....	Specifies the port number of TCP/IP. The default number is 23. Use the same port number specified by application. There are some reserved port numbers*2. If one of those port numbers is used, the alert dialog window will appear and let you know that it is an invalid port number.

\*1 This product will restart when "Port number" or "Serial Control" is changed and it takes about 20 seconds.

## Setting examples for the serial control

Setting for controlling the equipment connected to the serial port from the computer.

- Serial Control :Selects "External"
- Port number :Sets according to the computer specified port no. Do not use port number 10000\*2.
- Other Settings :Sets according to the communication condition of the equipment



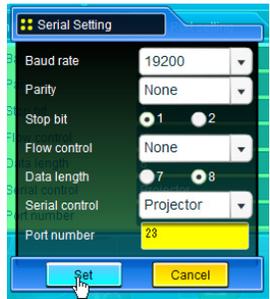
Setting for controlling the projector from the serial controller connected to the serial port.

- Serial Control :Selects "Projector"
- Port number :Not specified. Do not use port number 10000\*2.
- Other Settings :Sets according to the communication condition of the serial controller



Setting for controlling the projector from the computer through the LAN port.

- Serial Control :Not specified
- Port number :Not specified
- Other Settings :Not specified



\* The port number of the computer must be used with 10000.

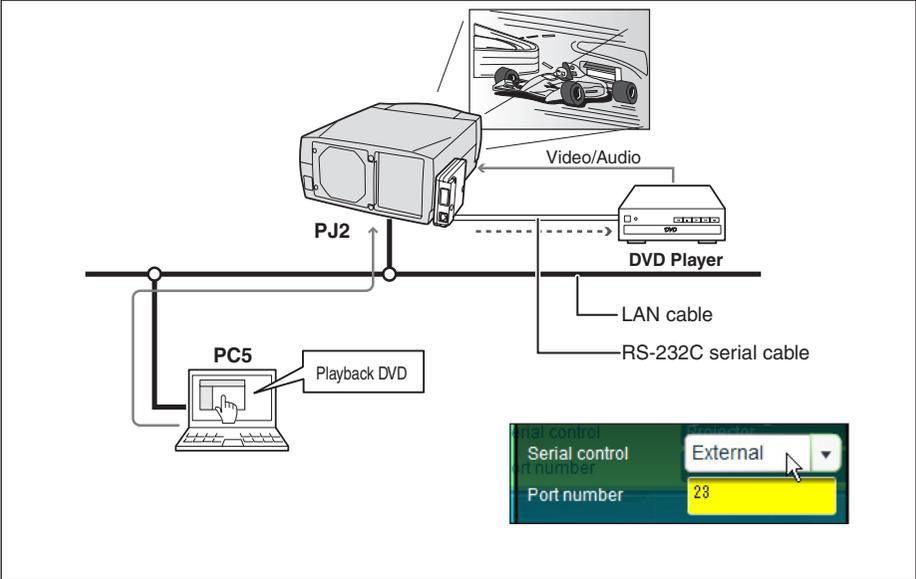
\*2 The reserved port numbers are http (80), ftp (21), SNMP (25), POP3 (110) etc. The port number 10000 is reserved to control the projector through the LAN port.

- ☞ Exclusive driver software for control of the external equipment is required. This product does not provide any driver software. Please consult your local dealer.
- ☞ There are 2 types of RS-232C serial cable, Normal(Straight) and Reverse(Cross) type. Usually, when connecting between this product and a projector or a computer, use Reverse type of serial cable. When connecting DVD player etc., use Normal type.

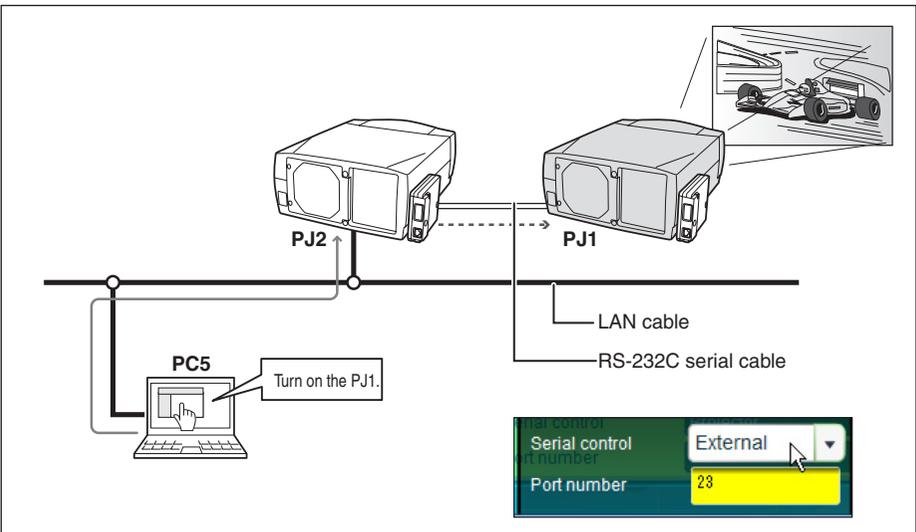
# Control examples

## Example 1

Controlling AV equipment through network.

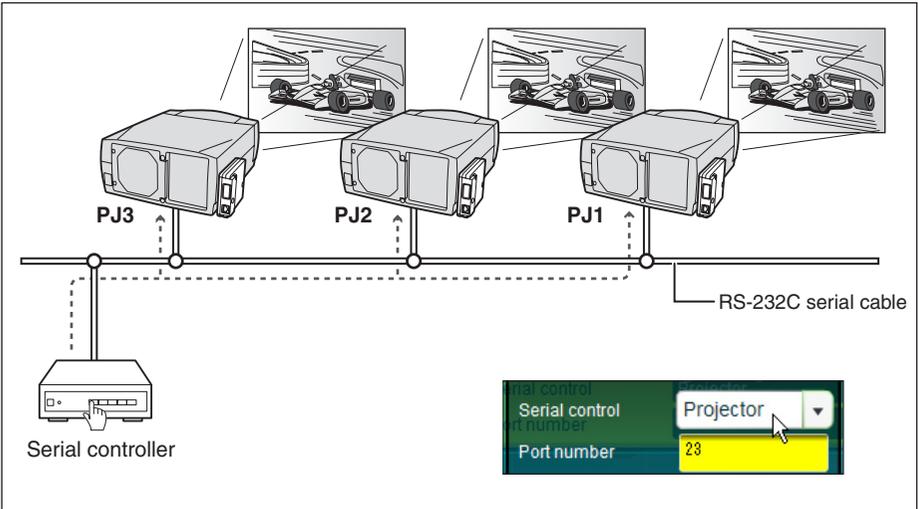


Controlling a projector not provided with the network function through network.



### Example 3

Controlling the projector with the serial controller through the serial port (RS-232C).



Use proper serial cable depending on the connected equipment port specification. Please refer to "Port Specification" of the serial port specification of this product (p.78).

## Use of telnet

You can control the external equipment connected to the serial port on the Network Unit by using the telnet application\*<sup>1</sup> installed on your computer. The following is a control example of external equipment. The telnet application is needed to use commands\*<sup>2</sup> which control the external equipment.

### Preparation

- 1 Disconnect the AC plug from the outlet and connect an external equipment to the serial port with an RS-232C serial cable.
- 2 Turn on the projector and external equipment.
- 3 Display the setting page by clicking **Serial Port setting** sub menu in the **Initial Setting** main menu with the web browser. Display the setting pallet by clicking any of the items on the serial port setting page. (p.62).
- 4 Change the serial port setting to be the same communication condition as the connected external equipment and then click **Set** button.

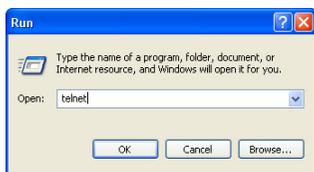
The following example setting is for our projector communication condition. When controlling our projector set as follows:

Baud rate .....	19200
Parity .....	None
Stop bit .....	1
Flow control .....	None
Data length .....	8
Serial control.....	External
Port number .....	23

### Control

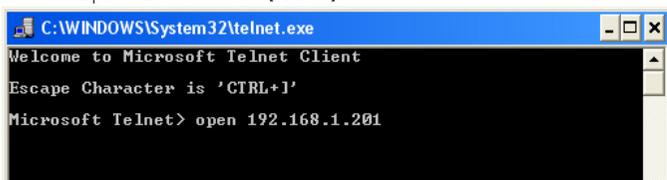
(For example, in case of using the Telnet application of the Windows XP Professional.)

- 1 Select **Run...** submenu from **Start** menu on the computer. Type "telnet" onto the **Open** text area on the displayed window and press **OK** button.



- 2 The telnet application will start and the following window will be displayed. Type as below to connect the projector.

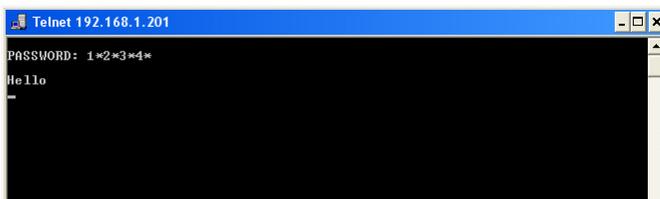
> open 192.168.1.201 [return]



\* Use the IP address assigned to the projector

- 3 When communication is established, the word "PASSWORD:" appears on the window. Type the login password (PIN code) for the projector and then press "Enter" key on the keyboard. If you do not set up the network PIN code, just press "Enter" key.

When the word "Hello" is replied, login has been succeeded.



- 4 Type the commands from the key board to control the external equipment and then press "Enter" key for termination. For example, type "C00" and press "Enter" key.
- \* "C00" is a command to turn the projector on.
  - The extra projector will be turned on.

To disconnect the communication, press "Ctrl" key and "]" key at the same time.

\*1 Further instructions about the telnet application, please see the on-line guide on your computer.

\*2 The commands are defined by each product independently, so please consult the manufacturer or sales dealer for further information of the commands.

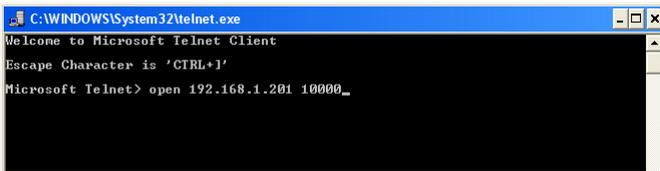
\* The password is a network PIN code decided item "Network PIN code setting" (P.20, 29). If the authentication of the entered password is failed 4 times continuously, the communication will be disconnected automatically. Please try again for the connection.

## Control the projector with telnet

This product allows you to control the projector by using the telnet application. Normally, it is used for controlling the external equipment connected to the serial port but it also controls the projector by specifying the telnet port number 10000.

\* To control the projector with telnet application is not depending on the serial port setting.

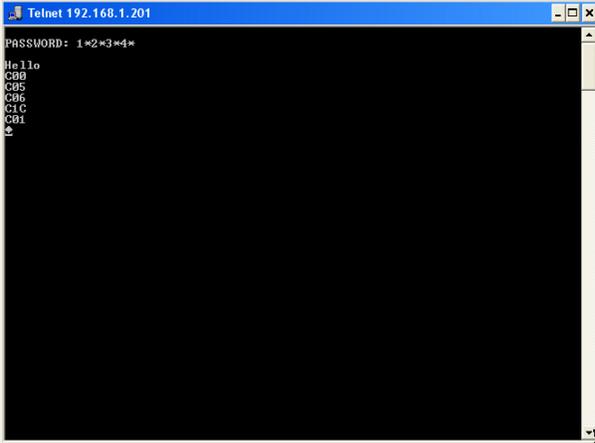
In the step 2 of the previous page, enter port number "10000" after the IP address number.  
> open 192.168.1.201 10000 [return]



\* Use the IP address assigned to the projector

After the communication is established, type the password (PIN code) and the command for controlling the projector and then press "Enter" key.

The table below shows the typical command lists for controlling our projector and please consult your local dealer for further information of another commands.



Command list table

Command	Function
C00	Power on
C02	Power off
C05	Selects input1
C06	Selects input2
C07	Selects input3
C09	Volume up
C0A	Volume down
C0B	Audio Mute on
C0C	Audio Mute off
C0F	Screen Normal size
C10	Screen Full size
C1C	Menu display on
C1D	menu display off
C23	Input2 (Video)
C24	Input2 (Y,Pb/Cb,Pr/Cr)
C25	Input2 (RGB)
C33	Input3 (Video)
C34	Input3 (S-Video)
C35	Input3 (Y,Pb/Cb,Pr/Cr)

# 6

## Chapter 6 Appendix

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Examples of connection

Web browser setting

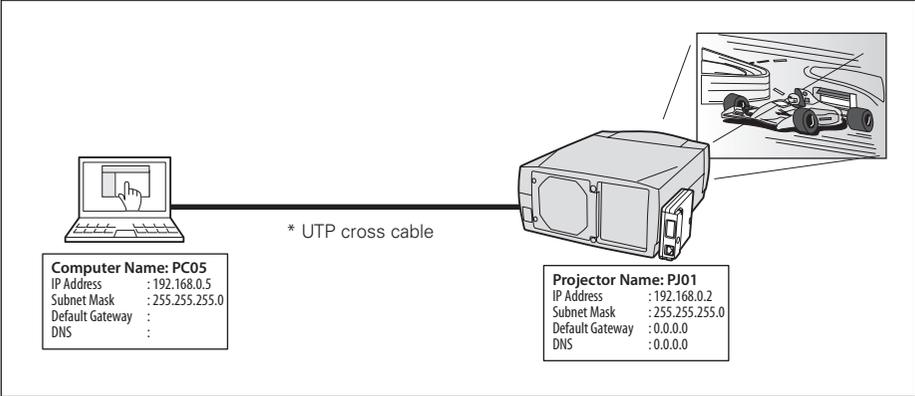
Technical data

Q & A

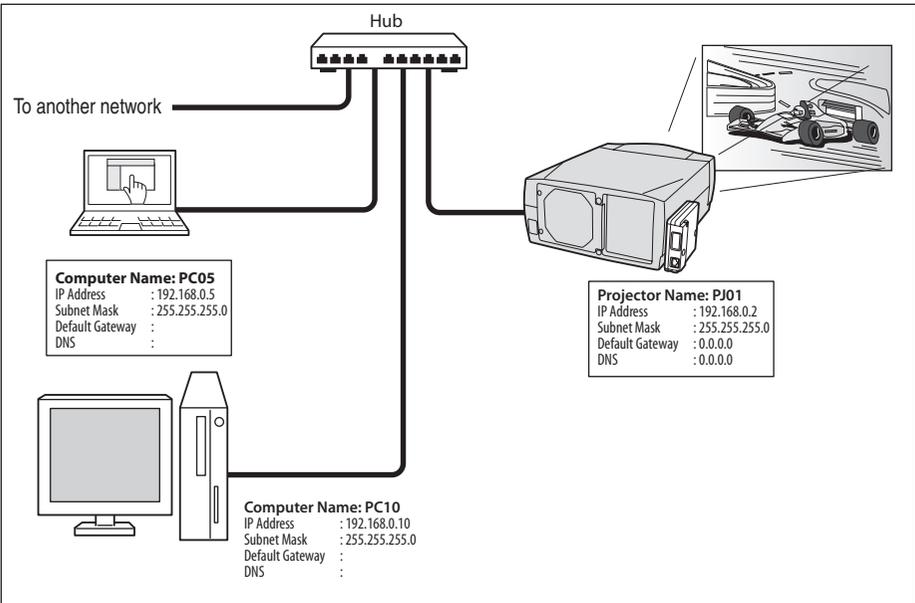
# Examples of connection

## Peer-To-Peer connection

Connecting the projector (PJ01) to the control computer (PC05) directly.



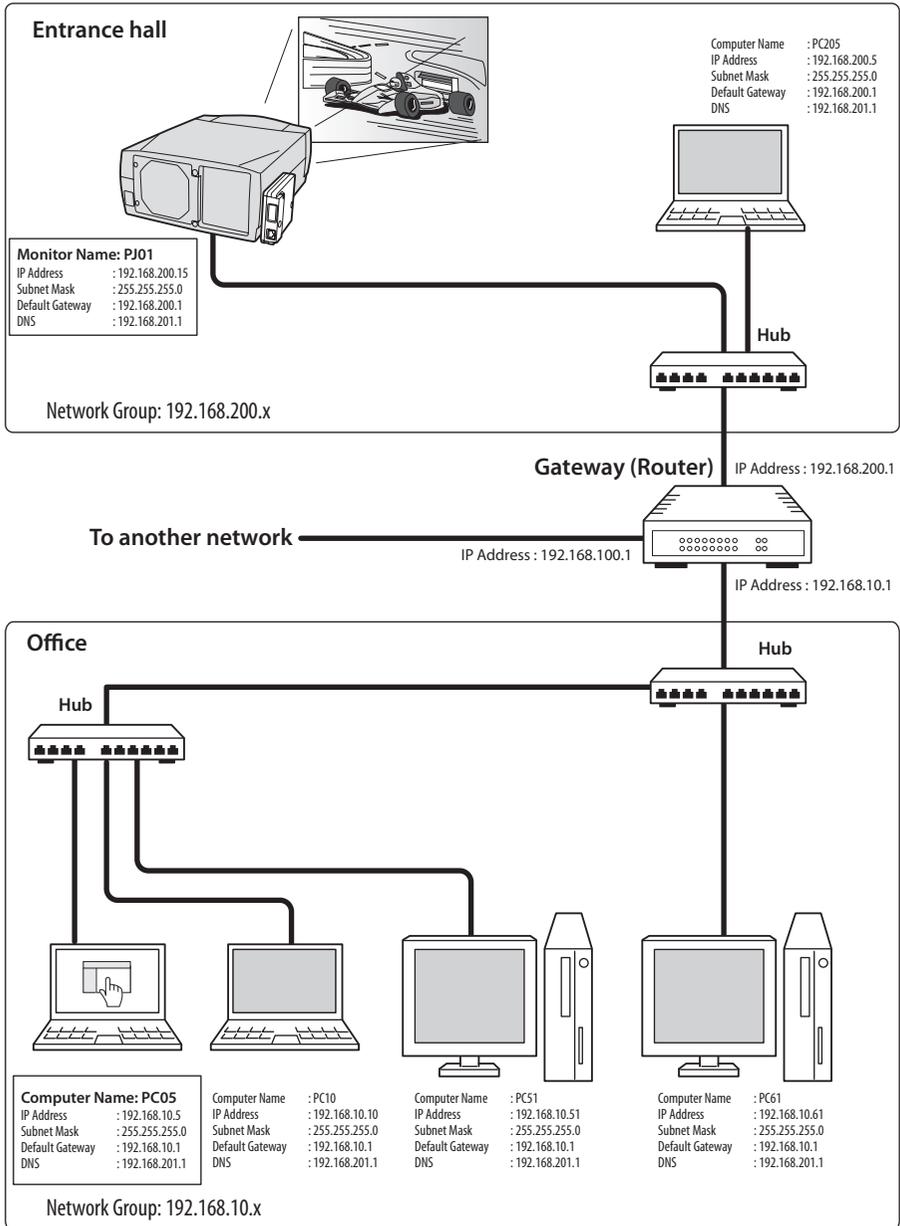
Connecting the projector (PJ01) to the control computer (PC05) via the hub.



☞ When the projector is connected to the computer directly without hub, the UTP cross cable should be used.

## The gateway (Router) installed in the network

Connecting the projector (PJ01) to the control computer (PC05) via the gateway.



## Web browser setting

This product is designed to enable the projector to be set up and controlled from an Internet web browser. Depending on the preference settings of the web browser, some control functions may not be available. Please make sure that the following functions are set up properly in the web browser.

### Active Script/JavaScript enable

There are some control items used with the JavaScript function in the setting pages. If the web browser is set not to use this JavaScript function, it may not control the projector properly. In this case, the following warning message will be displayed on the top of the page. To enable the JavaScript, please see further instructions on the next page.



### Proxy setting

In some cases, your web browser is set up to use the proxy server for the internet or intranet connection. In this case, when you install this product into the local network, you should set up the proxy setting of web browser preference correctly. Especially when connecting the projector and computer with a UTP cross cable directly, or when the network does not provide the proxy server, make sure that "not use proxy server" is set up in your web browser preference. To set up the proxy setting, please see further instructions in the next item "Examples: OS/Browsers" (p.74,76).

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 There are various ways to change your browser preferences depending on the version or applications. Please see the setting instructions on next page for example and also refer to on-line help of your web browser.

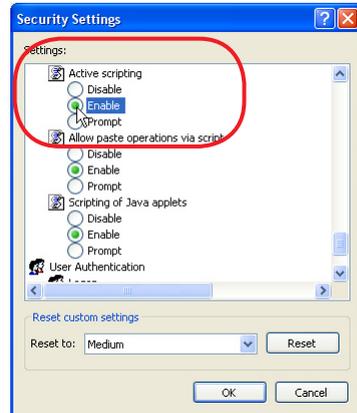
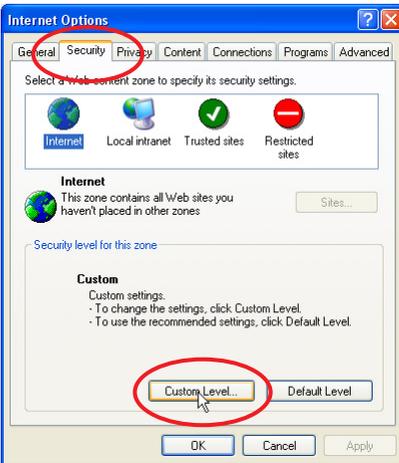
## Examples: OS/Browsers

### Windows XP Professional

#### Internet Explorer v.6.0

#### ActiveScript setting

Select **Internet Options** menu from **Tool** menu on the web browser and then select **Security** tab and click **Customize Level...** button. On the security setting window, scroll down and find the **Scripting** item, make sure that "Enable" is selected in item **Active Scripting**.



## Proxy setting

Select **Internet Options** menu from **Tool** menu on the web browser and then select **Connection** tab and click **LAN Settings** button. Properly set up your web browser's the proxy server settings according to the local area network environment to which the projector is connected.

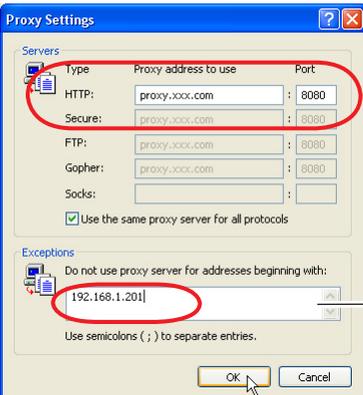
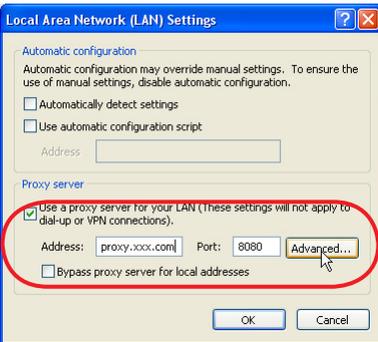
### - Using proxy server

To use an external internet connection from the local area network, check the item **Use a proxy server** and enter the proxy server address and port correctly in the proxy settings window. For further instruction please consult your network administrator.

### - Not using proxy server

Uncheck the item **Use a proxy server**.

If you connect the projector to the computer directly with UTP cross cable, this must be unchecked.

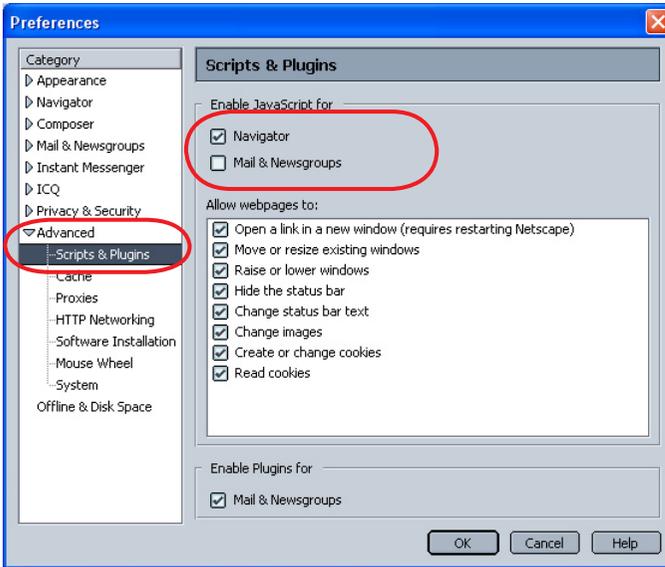


To designate proxy settings that will not use the proxy server when accessing the projector installed in the local area network, enter the IP address or domain name here.

## Netscape Navigator v.7.0

### JavaScript Setting

Select **Preference** menu from **Edit** menu on the web browser and then select the item **Advanced/Scripts & Plug-ins** in the **Category** column. Make sure that the **Enable JavaScript for Navigator** is checked.



## Proxy setting

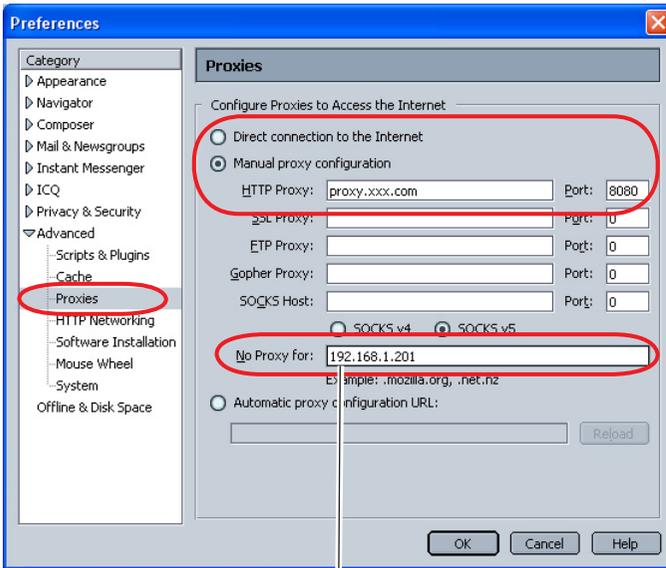
Select **Preference** menu from **Edit** menu on the web browser and then select the item **Advanced/Proxies** in the **Category** column. Properly set up your web browser's the proxy server settings according to the local area network environment to which the projector is connected.

### - Using proxy server

When you use an external internet connection from the local area network, select the item **Manual proxy configuration**. Enter the proxy server address and port number correctly on **HTTP Proxy** item. For further instruction please consult your network administrator.

### - Not using proxy server

Select the item **Direct connection to the Internet** in the proxy setting window. If you connect the projector to the computer directly with UTP cross cable, this must be selected.



To designate proxy settings that will not use the proxy server when accessing the projector installed in the local area network, enter the IP address or domain name here.

## Product specification

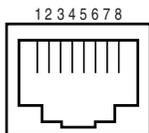
Type.....	Network Unit	
LAN interface .....	Applicant regulation	IEEE802.3 (10Base-T) IEEE802.3u (100Base-TX)
	Data transfer speed	10Mbps/100Mbps
	Data transfer mode	Half duplex/Full Duplex
	Terminal	8-pin modular (RJ-45)
	Network protocol.....	TCP/IP specification
Serial interface .....	RS-232C	
	Baud rate	0.3/1.2/2.4/4.8/9.6/19.2/28.8/57.6/115.2 Kbps
	Flow control	Hardware flow control (RTS/CTS, Xon/Xoff)
	Parity check	Odd/Even
	Terminal	D sub 9-pin Male
Power source .....	Supplied from the projector	
Power consumption .....	3.0 watts	
Dimensions (W x H x D).....	4.13" x 5.20" x 1.32" (105 x 132 x 33.6 x mm)	
Weight.....	0.57 lbs (258 g)	
Built-in battery .....	Lithium battery, Type CR2032, 3.0V	
Operating temperature .....	41°F ~ 95 °F (5°C ~ 35 °C)	
Storage temperature.....	14°F ~ 140°F (-10°C ~ 60°C)	

\* The specifications are subject to change without notice.

# Port specification

## LAN port specification

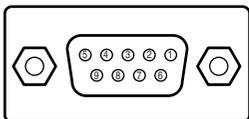
8-pin modular connector (RJ-45)



Pin No.	Signal	Function
1	TX+	Transfer data (+)
2	TX-	Transfer data (-)
3	RD+	Receive data (+)
4	(not used)	
5	(not used)	
6	RD-	Receive data (-)
7	(not used)	
8	(not used)	

## Serial port specification

D sub 9-pin connector (RS-232C)



Pin No.	Signal	Function
1	CD	Carrier detection
2	RXD	Receive data
3	TXD	Transfer data
4	DTR	Data terminal ready
5	Ground	Ground
6	DSR	Data set ready
7	RTS	Request to send
8	CTS	Clear to send
9	(not used)	

## Q&A

### Installation/Access

#### **Q** Why doesn't the setting page appear in my web browser?

**A** Following causes are possible. Please check them.

1. The projector does not connect to the network.  
Check LED indicators status (☞ p.15).
  - Check the connection of LAN cable if the LINK indicator does not light orange.
  - Check the network configuration of the projector if ACT indicator does not light green.
2. Function "Network" in the projector is not set to "ON".  
Set up by using the projector's on-screen menu (☞ p.18).
3. Wrong network configuration of the projector  
Check the network configuration of the projector by using the projector's on-screen menu (☞ p.18).
4. Wrong network configuration of the computer.  
Check the network configuration of the computer.
5. The Network Unit is used with the default setting (☞ p.18).
6. The proxy setting of the web browser is not set correctly (☞ p.72).
7. The computer does not provide TCP/IP protocol.

#### **Q** No setting page in my web browser? Is the problem in the network or in the projector? I would like to find out the problem whether it is in the network or in the projector

**A** Check it by the following steps

1. Disconnect the projector from the network and connect the projector and computer with the UTP cross cable directly.
2. Change network configuration of the computer and projector as shown in the example below.

(Projector setting)	(Computer setting)
IP Address : 192.168.0.2	IP Address : 192.168.0.5
Subnet Mask : 255.255.255.0	Subnet Mask : 255.255.255.0
Default gateway : 0.0.0.0	Default gateway : (blank)
DNS : 0.0.0.0	DNS : (blank)

3. Enter the projector's IP address [192.168.0.2] at "Address" column on the Web browser. [Note] Make sure that the proxy setting of your web browser is set "Not using proxy server" (☞ p.74, 76).
4. If the login page appears, this product is operating properly. The problems may be in the network configuration of the computer or in the network. Please try to set up the network by following item "Network configuration" (☞ p.18).  
If the login page does not appear, please check for proper mounting of this product onto the projector by referring to chapter "Installation and Network configuration" (☞ p.16-17).

**Q** **How can I restrict access from the computer.**

- A**
1. Please use the password authentication function on the login page (☞ p.24).
  2. Please use the IP filtering function provided with the gateway (router) to restrict the accessing from the computer. For further information please consult your network administrator.

**Q** **Can I access the projector installed on the company's local area network from a remote location?**

- A**
- There are some ways to access to the projector in the LAN, but you must consult your network administrator for security reason.
- ☛ Use of modem  
(Connect to the company's network from your home or some other places by using modem.)
  - ☛ Use of private line  
(Connect to the company's network from the branch office or maintenance office by using private line.)
  - ☛ Use of internet  
(Connect to the company's network from your home, branch office or some other places by using the internet.)

**Q** **We use the DHCP/BOOTP server to assign the IP address. Is it possible to use the Network Unit in this network environment?**

- A**
- Possible. As the Network Unit does not support the DHCP/BOOTP server, the fixed IP address must be configured manually. Please consult your network administrator (☞ p.22).

**Q How can I install several projectors equipped with the Network Unit?**

**A** Install and configure network one by one to avoid the IP address collision each other (☞ p.22).  
To configure the IP address please see item "Network configuration" (☞ p.18).

**Q How many projectors can I control with multi-control function?**

**A** It has been designed to control up to 100 sets but it depends on the network environment.

**Password/Login****Q What should I do when I forget the password (Network PIN code)?**

**A** Select "Network PIN code" sub menu from "Network" menu on the projector. For further information, please see item "Network PIN code setting" (☞ p. 20).

**Q Can I register the setting page as a web browser "Favorites" or "Bookmarks"?**

**A** Please add "Login" page to your "Favorites" or "Bookmarks". Do not add the specified setting page because it will not be able to perform the password authentication correctly.

## Operation

**Q Why can't I change the controls in the setting page with web browser?**

**A** Please make sure the projector is turned on. If it is in the standby mode, the setting is not effective to the projector. To control the projector with a web browser, the projector must be in the powered-on condition. Also, projectors registered for multi-control cannot have any controls changed if they are in standby mode. But timer and clock settings are always effective, even for projectors in standby mode.

**Q Why does it sometimes take a lot of time to complete the page display?**

**A** The display speed of the page depends on the network environment in which both the projector and computer are placed. It may take much time to complete the page display if network traffic is heavy. Please consult your network administrator. You can select the Light mode for displaying pages quickly (☞ p.24).

**Q I use many of the projectors in the network. How can I use names of the projectors to recognize each projector instead of IP addresses?**

**A** You can manage the projectors with nicknames instead of the IP address. Please see item "Multi-Control" for further information (☞ p.56).  
By registering the projector name and IP address with the DNS server, it can be accessed with the nickname from the any computer referred to the DNS server. Please consult your network administrator (☞ p.31).

**Q How many numbers of the E-mail address can I register in the E-mail setting page?**

**A** You can register up to 10 addresses.

**Q Why am I not receiving E-mail alert messages?**

**A** Make sure that the registered E-mail address and SMTP server address are correct. If the SMTP server is located in your LAN (Local Area network), the address should be set to the SMTP server in your LAN. The SMTP server located outside of your LAN may not be available for security reason. For further information please contact your network administrator (☞ p.32).  
It may be required for the authentication depending on the SMTP server. This product does not support this kind of SMTP server.

**Others****Q Can I develop a driver to control external serial equipment?**

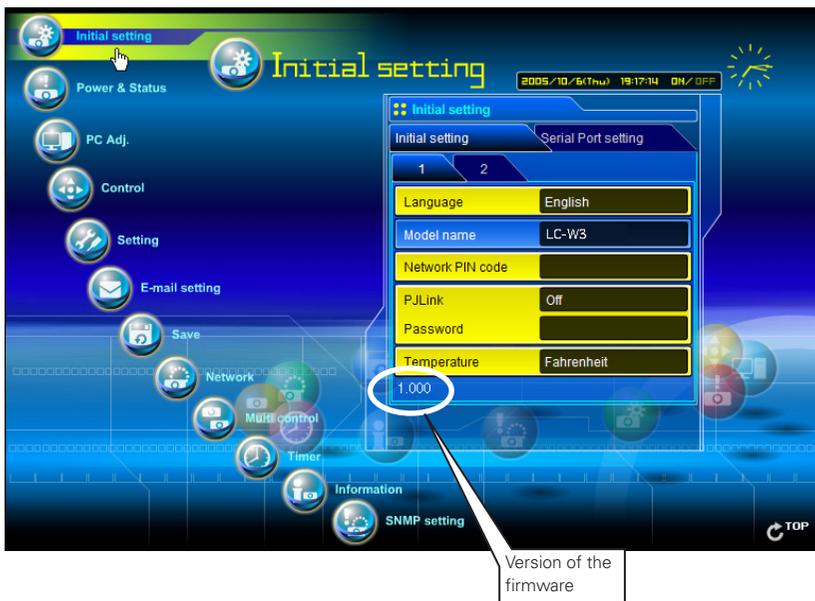
**A** This product does not provide any driver software. To control the external equipment connected to the extra serial port, it should be required to clarify the commands and communication condition defined by each equipment. If they are clarified, it can be controlled by using the Telnet application installed on your computer. Please see item "Use of telnet" (☞ p.66).

**Q Can I control the projector by using the telnet application?**

**A** Possible. Please refer to the item "Control the projector with telnet" (☞ p.68).

**Q** Can I update the firmware of the Network Unit?

**A** It is possible to update the firmware through the network. It is required to have a special tool for the updating. For further information please consult your local dealer. The version number of the firmware is indicated on the lower part of the "Initial Setting" page. (☞ p.28)



## Q What are the rules for IP address assignment?

A If the network is constructed with TCP/IP protocol, a unique IP address is required for each piece of network equipment. The following are basic rules of the assignment.

### Rule1

Do not configure the same IP address to the network equipment in the same network group. Each piece of equipment must be assigned a unique IP address.

If the IP address is set [192.168.x.x], the Subnet Mask should be set [255.255.255.0] for example.

### Rule2

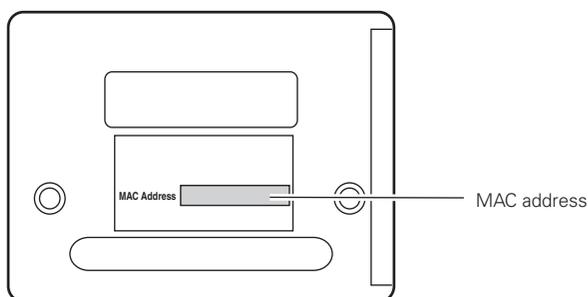
The start address [xxx.xxx.xxx.0] and the last address [xxx.xxx.xxx.255] of the IP address must not be assigned to any other equipment. These address numbers are reserved.

### Rule3

The IP address must correlate to a network number. If network numbers are different between the equipment, they cannot establish communications each other. In this case, the router is placed in the networks to make the routing.

## Q What is the MAC address assigned to the Network Unit?

A The MAC address is indicated on the case back as the below.



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