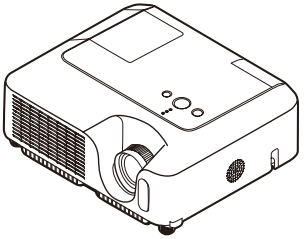
Projector

CP-X265

User's Manual – Network Functions



This manual is only intended to explain Network Functions.
For safety, operations or any other issues, refer to the User's Manual, Quick Start Guide or Safety Guide.

⚠WARNING • Before using the network functions, read the User's Manual and Quick Start Guide carefully to ensure your projector is set up correctly.
• After reading, keep the manuals in a safe place for future reference.

NOTE • The information in this manual is subject to change without notice.
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Network Functions

This projector is equipped with the following network functions.

Configuring and Controlling the Projector via a Web Browser

You can change the settings of or control the projector via a network by using a web browser from a PC that is connected to the same network.
(📖*4*)

Failure & Warning Alerts via E-mail

The projector can automatically send an alert to specified e-mail addresses when the projector requires maintenance or has encountered an error.
(📖*26*)

Projector Management via SNMP

This projector is SNMP (Simple Network Management Protocol) compliant, allowing you to monitor it from a remote location using SNMP software. In addition, the projector is able to send failure & warning alerts to a specified PC.
(📖*28*)

Controlling the Projector via Scheduling

You can schedule the projector to perform various functions according to the DATE and TIME.
(📖*29*)

Still Image Transfer

The projector can display still images that are transferred via the network.
(📖*32*)

Projector Control via RS-232C via the Network

The projector can be controlled using RS-232C commands over a network.
(📖*34*)

Before using the network functions...

To use the network functions of this projector, the projector must be configured to suit your network. Consult with your network administrator before connecting the projector to your network. Incorrect network configuration of this projector may cause problems on your network.
Connect to the Gateway (The router/PC that forwards traffic to a destination outside of the subnet of the transmitting device) from the network terminal on the projector using a CAT-5 cable and configure the following settings.

If using a network with DHCP enabled:

The projector's network settings can be configured automatically. when **[DHCP]** on the network menu is set to **[TURN ON]**. Please refer to DHCP in network menu. (*User's Manual - Operating Guide : NETWORK Menu*) If a fixed / static IP address is required, please configure your projector according to the steps in the following section.

If using a network system that does not have DHCP enabled or if using a fixed IP address on a network system equipped with DHCP enabled:

Configure the following settings on the network menu.
(*User's Manual - Operating Guide : NETWORK Menu*)

1. **[DHCP]**: Disable DHCP (Set **[DHCP]** to **[TURN OFF]**).
2. **[IP ADDRESS]**: Enter an appropriate IP address for the projector to connect to your network.
3. **[SUBNET MASK]**: Enter an appropriate SUBNETMASK for the projector to connect to your network.
4. **[DEFAULT GATEWAY]**: Enter an appropriate Gateway (the router/PC that forwards traffic to a destination outside of the subnet of the transmitting device) address for the projector to connect to your network.

Configuring and controlling the projector via a web browser

You can adjust or control the projector via a network from a web browser on a PC that is connected to the same network.

NOTE • Internet Explorer 5.5 or higher or Netscape 6.2 or higher are required.
• If JavaScript is disabled in your web browser configuration, you must enable JavaScript in order to use the projector web pages properly. See the Help files for your web browser for details on how to enable JavaScript.
• This projector is SSL (Secure Socket Layer) compliant. Please specify “https://” when the entering the projector address.
• If no operations are performed via a web browser for approx. 50 seconds the system will automatically log off. Please Re-log on to continue operations via a web browser.
• After you logon, a small, blank window will appear behind the main operation window. Please do not close this small, blank window. If this window is closed, the system will automatically log off after certain period of time even if an operation is being performed.
The small, blank window will close when the main operation window is closed.
• The small, blank window may be considered a pop-up and be blocked if you are using Windows XP Service Pack 2, or using other security software.
If Service Pack 2 blocks the window the following message will appear:
"Pop-up blocked. To see this pop-up or additional options click here..."
Please select "Temporarily Allow Pop-ups" or "Always Allow Pop-ups From This Site..." to allow the window to open.
• It is recommended that all web browser updates be installed. It is especially recommended that all users running Internet Explorer on a Microsoft Windows version prior to Windows XP Service Pack 2 install security update Q832894 (MS04-004) or the web browser interface may not be displayed correctly.
And when using an older version of Internet Explorer, during operations the browser will log out after 50 seconds.

Configuring and controlling the projector via a web browser (Continued)

When configuring or controlling the projector via a web browser, an ID and password are required. There are two types of IDs, Administrator IDs and User IDs. The following chart describes the differences between user and administrator IDs.

Item	Description	Administrator ID	User ID
Network Information	Displays the projector's current network configuration settings.	√	√
Network Settings	Displays and configures network settings.	√	N/A
Port Settings	Displays and configures communication port settings.	√	N/A
Mail Settings	Displays and configures e-mail addressing settings.	√	N/A
Alert Settings	Displays and configures failure & warning alerts.	√	N/A
Schedule Settings	Displays and configures schedule settings.	√	N/A
Date/Time Settings	Displays and configures the date and time settings.	√	N/A
Security Settings	Displays and configures passwords and other security settings.	√	N/A
Projector Control	Controls the projector.	√	√
Projector Status	Displays and configures the current projector status.	√	√
Network Restart	Restarts the projector's network connection.	√	N/A

Below are the factory default settings for administrator IDs, user IDs and passwords.

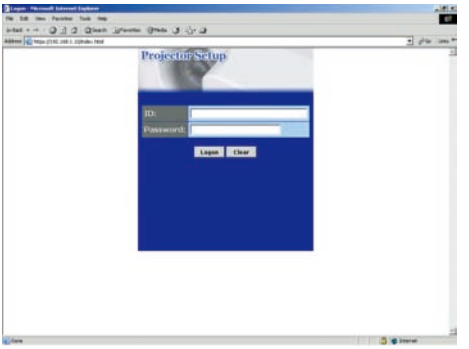
Item	ID	Password
Administrator ID	Administrator	<blank>
User ID	User	<blank>

Settings

Refer to the following for configuring or controlling the projector via a web browser.
Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10]** into the address bar of the web browser and the screen in Fig. 1 will be displayed.
2) Enter your ID and password and click **[Logon]**.

Fig. 1



If the logon is successful either the Fig.2 or Fig.3 screen will be displayed.

Fig. 2 (Logon with administrator ID)

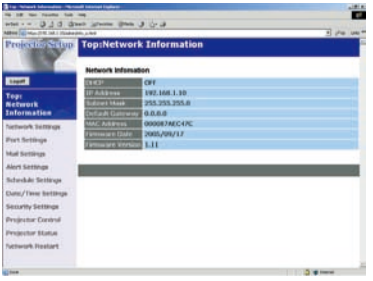
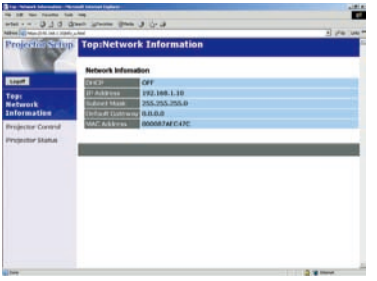
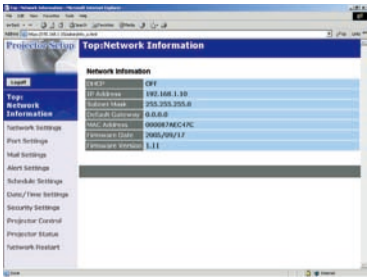


Fig. 3 (Logon with user ID)



3) Click the desired operation or configuration item on the main menu located on the left-hand side of the screen (Fig. 2 or Fig. 3).

Network Information

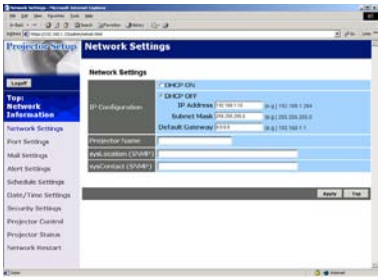


All screen images displayed in this manual are screens of a logon using an administrator ID. Any administrator only functions will not be displayed when using a user ID. Refer to the descriptions in each table.

Displays the projector's current network configuration settings.

Item	Description
DHCP	Displays the DHCP configuration settings.
IP Address	Displays the current IP address.
Subnet Mask	Displays the Subnet Mask.
Default Gateway	Displays the Default Gateway.
MAC Address	Displays the MAC address.
Firmware Date	Displays the network firmware time stamp. This information is only displayed when logged on using an administrator ID.
Firmware Version	Displays the network firmware version number. This information is only displayed when logged on using an administrator ID.

Network Settings



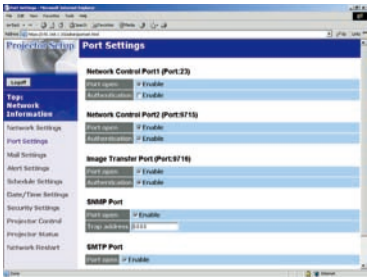
Displays and configures network settings.

Item	Description
IP Configuration	Configures network settings.
DHCP ON	Enables DHCP.
DHCP OFF	Disables DHCP.
IP Address	Configures the IP address when DHCP is disabled.
Subnet Mask	Configures the Subnet Mask when DHCP is disabled.
Default Gateway	Configures the Default Gateway when DHCP is disabled.
Projector Name	Configures the Projector name.
SysLocation	Configures the location to be referred to when using SNMP.
SysContact	Configures the contact information to be referred to when using SNMP.

Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. When the configuration settings are changed, you must restart the network connection. You can restart the network connection by clicking **[Network Restart]** on the main menu.
• If you connect the projector to an existing network, consult a network administrator before setting server addresses.

Port Settings



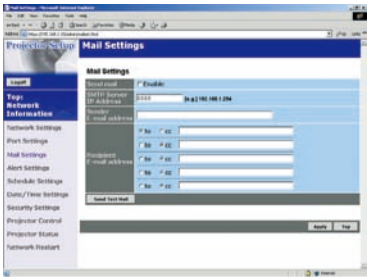
Displays and configures communication port settings.

Item	Description
Network Control Port1 (Port:23)	Configures command control port 1 (Port:23).
Port open	Click the **[Enable]** check box to use port 23.
Authentication	Click the **[Enable]** check box when authentication is required for this port.
Network Control Port2 (Port:9715)	Configures command control port 2 (Port:9715).
Port open	Click the **[Enable]** check box to use port 9715.
Authentication	Click the **[Enable]** check box when authentication is required for this port.
Image Transfer Port (Port:9716)	Configures the image transfer port (Port:9716).
Port open	Click the **[Enable]** check box to use port 9716.
Authentication	Click the **[Enable]** check box when authentication is required for this port.
SNMP Port	Configures the SNMP port.
Port open	Click the **[Enable]** check box to use SNMP.
Trap address	Configures the destination of the SNMP Trap in IP format.
SMTP Port	Configures the SMTP port.
Port open	Click the **[Enable]** check box to use the e-mail function.

Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. The network connection must be restarted when the configuration settings are changed. The network connection can be restarted using **[Network Restart]** on the main menu.dresses.

Mail Settings



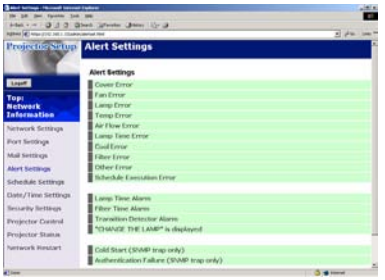
Displays and configures e-mail addressing settings.

Item	Description
Send Mail	Click the **[Enable]** check box to use the e-mail function. Configure the conditions for sending email under **[Alert Settings]**.
SMTP Server IP Address	Configures the address of the mail server in IP format.
Sender E-mail address	Configures the sender e-mail address. The length of the sender e-mail address can be up to 255 alphanumeric characters.
Recipient E-mail address	Configures the e-mail address of up to five recipients. You can also specify **[TO]** or **[CC]** for each address. The length of the recipient e-mail address can be up to 255 alphanumeric characters.

Click the **[Apply]** button to save the settings.

NOTE • You can confirm whether the mail settings work correctly using the [Send Test Mail] button.
• If you connect the projector to an existing network, consult a network administrator before setting server addresses.

Alert Settings



Displays and configures failure & warning alerts.

Item		Description
Cover Error		Configures Cover Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Fan Error		Configures Fan Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e- mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

Alert Settings (Continued)

Item		Description
Lamp Error		Configures Lamp Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Temp Error		Configures Temp Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Air Flow Error		Configures Air Flow Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

Alert Settings (Continued)

Item		Description
Lamp Time Error		Configures Lamp Time Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Cool Error		Configures Cool Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Filter Error		Configures Filter Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

Alert Settings (Continued)

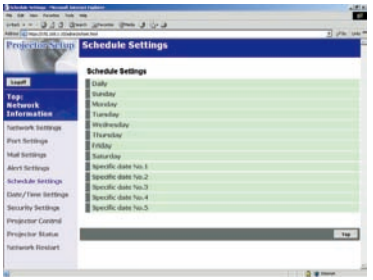
Item		Description
Other Error		Configures Other Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Schedule Execution Error		Configures Schedule Execution Error alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable**] check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Lamp Time Alarm		Configures Lamp Time Alarm alert settings.
	Alarm Time	Configures the lamp time to alert.
	SNMP Trap	Click the **[Enable**] check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.

Alert Settings (Continued)

Item		Description
Filter Time Alarm		Configures Filter Time Alarm alert settings.
	Alarm Time	Configures the filter time to alert.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Transition Detector Alarm		Configures Transition Detector Alarm alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
“CHANGE THE LAMP” is displayed		Configures alert settings for when “CHANGE THE LAMP” is displayed.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
	Send Mail	Click the **[Enable]** check box to enable e-mail alerts for this item.
	Mail Subject	Configures the subject line of the e-mail to be sent. The length of the subject line can be up to 255 alphanumeric characters.
	Mail Text	Configures the text of the e-mail to be sent. The length of the text can be up to 1024 alphanumeric characters.
Cold Start		Configures Cold Start alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.
Authentication Failure		Configures Authentication Failure alert settings.
	SNMP Trap	Click the **[Enable]** check box to enable SNMP Trap alerts for this item.

Click the **[Apply]** button to save the settings.

Schedule Settings



Displays and configures schedule settings.

Item		Description
Daily		Configures the daily schedule.
	Schedule	Click the **[Enable]** check box to enable daily scheduling.
	Schedule List	Displays the current daily schedule.
Sunday		Configures the Sunday schedule.
	Schedule	Click the **[Enable]** check box to enable Sunday scheduling.
	Schedule List	Displays the current Sunday schedule.
Monday		Configures the Monday schedule.
	Schedule	Click the **[Enable]** check box to enable Monday scheduling.
	Schedule List	Displays the current Monday schedule.
Tuesday		Configures the Tuesday schedule.
	Schedule	Click the **[Enable]** check box to enable Tuesday scheduling.
	Schedule List	Displays the current Tuesday schedule.
Wednesday		Configures the Wednesday schedule.
	Schedule	Click the **[Enable]** check box to enable Wednesday scheduling.
	Schedule List	Displays the current Wednesday schedule.
Thursday		Configures the Thursday schedule.
	Schedule	Click the **[Enable]** check box to enable Thursday scheduling.
	Schedule List	Displays the current Thursday schedule.
Friday		Configures the Friday schedule.
	Schedule	Click the **[Enable]** check box to enable Friday scheduling.
	Schedule List	Displays the current Friday schedule.
Saturday		Configures the Saturday schedule.
	Schedule	Click the **[Enable]** check box to enable Saturday scheduling.
	Schedule List	Displays the current Saturday schedule.

Schedule Setting (Continued)

Item		Description
Specific date No1		Configures the specific date (No.1) schedule.
	Schedule	Click the **[Enable]** check box to enable specific date (No.1) scheduling.
	Month/Day	Configures the Month and date.
	Schedule List	Displays the current specific date (No.1) schedule.
Specific date No.2		Configures the specific date (No.2) schedule.
	Schedule	Click the **[Enable]** check box to enable specific date (No.2) scheduling.
	Month/Day	Configures the Month and date.
	Schedule List	Displays the current specific date (No.2) schedule.
Specific date No.3		Configures the specific date (No.3) schedule.
	Schedule	Click the **[Enable]** check box to enable specific date (No.3) scheduling.
	Month/Day	Configures the Month and date.
	Schedule List	Displays the current specific date (No.3) schedule.
Specific date No.4		Configures the specific date (No.4) schedule.
	Schedule	Click the **[Enable]** check box to enable specific date (No.4) scheduling.
	Month/Day	Configures the Month and date.
	Schedule List	Displays the current specific date (No.4) schedule.
Specific date No.5		Configures the specific date (No.5) schedule.
	Schedule	Click the **[Enable]** check box to enable specific date (No.5) scheduling.
	Month/Day	Set the Month and date.
	Schedule List	Displays the current specific date (No.5) schedule.

Click the **[Apply]** button to save the settings.

Schedule Setting (Continued)

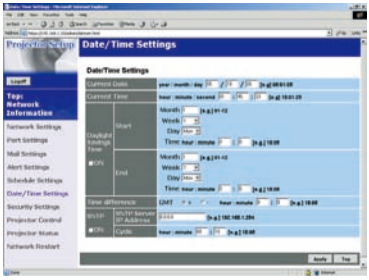
To add additional functions and events click the **[Add]** button and set the following items.

Item		Description
Time		Configures the time to execute commands.
Command		Configures the commands to be executed.
	Power Parameter	Configures the parameters for power control.
	Input Source Parameter	Configures the parameters for input switching.
	Display Image Parameter	Configures the parameters for display of transfer image data.

Click the **[Register]** button to add new commands to the Schedule List.

Click the **[Delete]** button to delete commands from the Schedule list.

Date/Time Settings



Displays and configures the date and time settings.

Item	Description
Current Date	Configures the current date in Year/Month/Day format.
Current Time	Configures the current time in Hour:Minute:Second format.

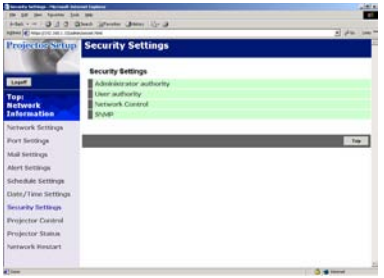
Date/Time Settings (Continued)

Item	Description
Daylight Savings Time	Click the **[ON]** check box to enable daylight savings time and set the following items.
Start	Configures the date and time daylight savings time begins.
Month	Configures the month daylight savings time begins (1~12).
Week	Configures the week of the month daylight savings time begins (First, 2, 3, 4, Last).
Day	Configures the day of the week daylight savings time begins (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
Hour	Configures the hour daylight savings time begins (0 ~ 23).
Minute	Configures the minute daylight savings time begins (0 ~ 59).
End	Configures the date and time daylight savings time ends.
Month	Configures the month daylight savings time ends (1 ~ 12).
Week	Configures the week of the month daylight savings time ends (First, 2, 3, 4, Last).
Day	Configures the day of the week daylight savings time ends (Sun, Mon, Tue, Wed, Thu, Fri, Sat).
Hour	Configures the hour daylight savings time ends (0 ~ 23).
Minute	Configures the minute daylight savings time ends (0 ~ 59).
Time difference	Configures the time difference (hours:minutes). Set the same time difference as the one set on your PC. If unsure, consult your network administrator.
SNTP	Click the **[ON]** check box to retrieve Date and Time information from the SNTP server and set the following items.
SNTP Server IP Address	Configures the SNTP server address in IP format.
Cycle	Configures the interval at which to retrieve Date and Time information from the SNTP server. (hours:minutes).

Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. The network connection must be restarted when the configuration settings are changed, The network connection can be restarted using **[Network Restart]** on the main menu.
• If you connect the projector to an existing network, consult a network administrator before setting server addresses.
• To enable the SNTP function, the time difference must be set.
• The projector will retrieve DATE and TIME information from the Timeserver and override time settings when SNTP is enabled.
• The Internal Clock's time may not remain accurate. Using SNTP is recommended to maintain accurate time.

Security Settings



Displays and configures passwords and other security settings.

Item		Description
Administrator authority		Configures the Administrator ID and Password.
	Administrator ID	Configures the Administrator ID. The length of the text can be up to 32 alphanumeric characters.
	Administrator Password	Configures the Administrator Password. The length of the text can be up to 255 alphanumeric characters.
	Re-enter Administrator Password	Re-enter the above password for verification.
User authority		Configures the User ID and Password.
	User ID	Configures the User ID. The length of the text can be up to 32 alphanumeric characters.
	User Password	Configures the User Password. The length of the text can be up to 255 alphanumeric characters.
	Re-enter User Password	Used to re-enter the above password for verification.

Security Settings (Continued)

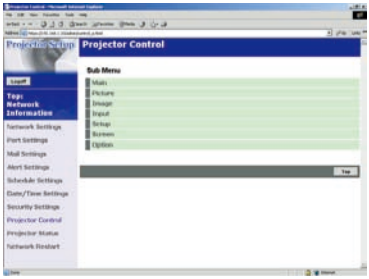
Item		Description
Network Control		Configures the Authentication Password for the command control.
	Authentication Password	Configures the Authentication Password. The length of the text can be up to 16 alphanumeric characters.
	Re-enter Authentication Password	Used to re-enter the above password for verification.
SNMP		Configures the community name if SNMP is used.
	Community Name	Configures the community name. The length of the text can be up to 64 alphanumeric characters.

Click the **[Apply]** button to save the settings.

NOTE • The new configuration settings are activated after restarting the network connection. The network connection must be restarted when the configuration settings are changed. The network connection can be restarted using **[Network Restart]** on the main menu.

Projector Control

Projector Control



The items shown in the table below can be performed using the **[Projector Control]** menu. Select an item using the up and down arrow keys on the PC.
Most of the items have a submenu.
Refer to the table below for details.

Controls the projector.

Item		Description
Main		
	Power	Turns the power On/Off.
	Input Source	Selects the input source.
	Picture Mode	Selects the Picture Mode setting.
	Blank On/Off	Turns Blank On/Off.
	Mute	Turns Mute On/Off.
	Freeze	Selects the Freeze setting.
	Magnify	Controls the Magnify setting.
Picture		
	Brightness	Adjusts the Brightness setting.
	Contrast	Adjusts the Contrast setting.
	Gamma	Selects the Gamma setting.
	Color Temp	Selects the Color Temp setting.
	Color	Adjusts the Color setting.
	Tint	Adjusts the Tint setting.
	Sharpness	Adjusts the Sharpness setting.
	MyMemory Recall	Recalls the MyMemory data.
	MyMemory Save	Saves the MyMemory data.

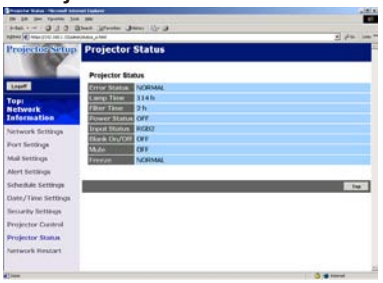
Projector Control (Continued)

Item		Description
Image		
	Aspect	Selects the Aspect setting.
	Over Scan	Selects the Over Scan setting.
	V Position	Adjusts the V Position.
	H Position	Adjusts the H Position.
	H Phase	Adjusts the H Phase.
	H Size	Adjusts the H Size.
	Auto Adjust	Performs Auto Adjustment.
Input		
	Progressive	Selects the progressive setting.
	Video NR	Selects the Video NR setting.
	Color Space	Selects the Color Space.
	Component	Selects the Component terminal setting.
	C-Video Format	Selects the Video Format setting.
	S-Video Format	Selects the S-Video Format setting.
	Frame Lock	Enables/Disables Frame Lock.
	RGB in-1	Selects the RGB1 input signal type.
	RGB in-2	Selects the RGB2 input signal type.
Setup		
	Aoto Keystone Execute	Performs the Automatic keystone distortion correction.
	Keystone	Adjusts the Keystone setting.
	Whisper	Selects the Fan speed. (Normal or Whisper)
	Mirror	Selects the Mirror status.
	Volume	Adjusts the Volume setting.
	Audio-RGB1	Assigns the Audio-RGB1 input terminal.
	Audio-RGB2	Assigns the Audio-RGB2 input terminal.
	Audio-Video	Assigns the Audio-Video input terminal.
	Audio-S-Video	Assigns the Audio-S-Video input terminal.
	Audio-Component	Assigns the Audio-Component input terminal.

Projector Control (Continued)

Item		Description
Screen		
	Language	Selects the Language for the OSD.
	Menu Position V	Adjusts the vertical Menu Position.
	Menu Position H	Adjusts the horizontal Menu Position.
	Blank	Selects the Blank mode.
	Startup	Selects the Startup screen mode.
	MyScreen Lock	Turns MyScreen Lock On/Off.
	Message	Turns the Message function On/Off.
Option		
	Auto Search	Turns the Automatic signal search function On/Off.
	Auto Keystone	Turns the Automatic keystone distortion correction function On/Off.
	Auto on	Turns the Auto on function On/Off.
	Auto off	Configures the timer to shut off the projector when no signal is detected.
	My Button-1	Assigns the functions for the MY BUTTON1 buttons on the included remote control.
	My Button-2	Assigns the functions for the MY BUTTON2 buttons on the included remote control.
	Auto Adjust	Enables/Disables Auto Adjustment.
	Remote Freq. Normal	Enable/Disable
	Remote Freq. High	Enable/Disable

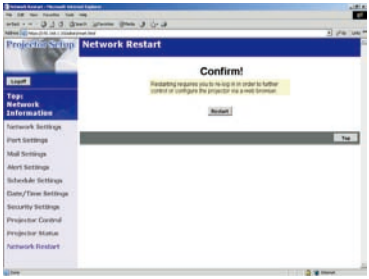
Projector Status



Displays and configures the current projector status.

Item	Description
Error Status	Displays the current error status
Lamp Time	Displays the usage time for the current lamp.
Filter Time	Displays the usage time for the current filter.
Power Status	Displays the current power status.
Input Status	Displays the current input signal source.
Blank On/Off	Displays the Blank On/Off status.
Mute	Displays the current Mute On/Off status.
Freeze	Displays the current Freeze On/Off status.

Network Restart



Restarts the projector's network connection.

Item	Description
Restart	Restarts the projector's network connection in order to activate new configuration settings.

NOTE • Restarting requires you to re-log on in order to further control or configure the projector via a web browser.

Logoff

When logoff is clicked, the logon screen is displayed (📖*6* : Fig. 1).

Failure & Warning Alerts via E-mail

The projector can automatically send an alert to specified e-mail addresses when the projector requires maintenance or has encountered an error.

NOTE • Up to five e-mail addresses can be specified.
• The projector may be not able to send e-mail if the projector suddenly loses power.

Mail Settings (📖10)

To use the projector's e-mail function please configure the following items via a web browser.

Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10]** into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Port Settings]** on the main menu.
4) Click the **[Enable]** check box to open the SMTP Port.
5) Click the **[Apply]** button to save the settings.

NOTE • A Network Restart is required after the SMTP Port configuration settings have changed. Click **[Network Restart]** and configure the following items.

6) Click **[Mail Settings]** and configure each item. Refer to the **[Mail Settings]** item in **[Configuring and Controlling the Projector via a Web Browser]** for further information.
7) Click the **[Apply]** button to save the settings.

NOTE • Click the **[Send Test Mail]** button in **[Mail Settings]** to confirm that the e-mail settings are correct. The following mail will be delivered to the specified addresses.

Subject line	: Test Mail	<Projector name>
Text	: Send Test Mail	
	Date	<Testing date>
	Time	<Testing time>
	IP Address	<Projector IP address>
	MAC Address	<Projector MAC address>

Mail Settings (Continued)

8) Configure the Failure/Warning Alerts via E-mail settings. Click **[Alert Settings]** on the main menu.
9) Select and configure each alert item. Refer to **[Alert Settings]** in **[Configuring and Controlling the Projector via a Web Browser]** for further information.
10) Click the **[Apply]** button to save the settings.

Failure/Warning e-mails are formatted as follows:

Subject line	: <Mail title>	<Projector name>
Text	: <Mail text>	
	Date	<Failure/Warning date>
	Time	<Failure/Warning time>
	IP Address	<Projector IP address>
	MAC Address	<Projector MAC address>

Projector management via SNMP

When SNMP is enabled, the projector is able to send Failure/Warning Alerts to a specified PC.

NOTE • It is recommended that SNMP functions be carried out by a network administrator.
• SNMP management software must be installed on the computer to monitor the projector via SNMP.

SNMP settings (📖9)

Configure the following items via a web browser to use SNMP.
Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10]** into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Port Settings]** on the main menu.
4) Click the **[Enable]** check box to open the SNMP Port.
   Set the IP address to send the SNMP Trap to when a Failure/Warning occurs.

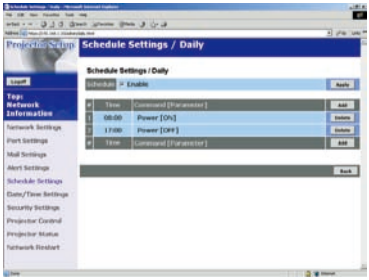
NOTE • A Network Restart is required after the SNMP Trap configuration settings have been changed. Click **[Network Restart]** and configure the following items.

5) Click **[Security Settings]** on the main menu.
6) Click **[SNMP]** and set the Community Name on the screen that is displayed.

NOTE • A Network Restart is required after the Community Name has been changed.
• Click **[Network Restart]** and configure the following items.

7) Configure the settings for Trap transmission of Failures/Warnings. Click **[Alert Settings]** on the main menu and select the Failure/Warning item to be configured.
8) Click the **[Enable]** check box to send out the SNMP trap for Failures/Warnings. Clear the **[Enable]** check box when SNMP trap transmission is not required.
9) Click the **[Apply]** button to save the settings.

Controlling the Projector via Scheduling



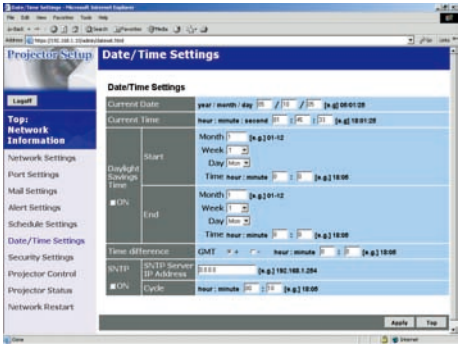
The projector can be automatically controlled via scheduling.

NOTE • You can schedule the following control events: Power ON/OFF, Input Source and Transferred Image Display.
• There are 3 types of Scheduling, 1) daily 2) day of the week 3) specific date.
• The priority for scheduled events is as follows 1) specific date 2) day of the week 3) daily.
• Up to five specific dates are available for scheduled events. Priority is given to those with the lower numbers when more than one event has been scheduled for the same date and time (e.g., ‘Specific day No. 1’ has priority over ‘Specific day No. 2’ and so on.
• Be sure to set the date and time before enabling scheduled events.

Date/Time Settings (📖18)

The Date/Time setting can be adjusted via a web browser.
Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10]** into the address bar of the web browser. Enter the Administrator ID and Password and click **[Logon]**.
2) Click **[Date/Time Settings]** on the main menu and configure each item. Refer to the **[Date/Time Settings]** item in **[Configuring and Controlling the Projector via a Web Browser]** for further information.
3) Click the **[Apply]** button to save the settings.



NOTE • A Network Restart is required after the Daylight Savings Time or SNTP configuration settings have been changed.
• The battery for the built in clock may be dead if the clock loses time even when the DATE and TIME have been set correctly. Replace the battery by following the instructions on replacing the battery.
(📖*User's Manual - Operating Guide : Replacing Internal Clock battery***)**
• The Internal Clock's time may not remain accurate. Using SNTP is recommended to maintain accurate time.

Schedule Settings (16)

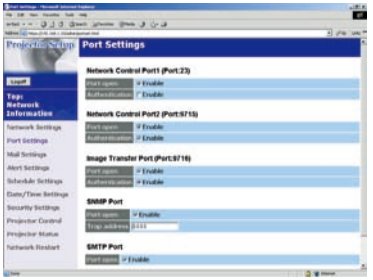
Schedule settings can be configured from a web browser.
Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10**] into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Schedule Settings]** on the main menu and select the required schedule item.
4) Click the **[Enable]** check box to enable scheduling.
5) Enter the Date (Month/Day) for specific date scheduling.
6) Click **[Add]** and set the hour, command and parameters and click **[Add This Schedule]** when you want to add a command.
7) Click the **[Delete]** button when you want to delete a schedule.
8) Click the **[Apply]** button to save the settings.

There are three types of scheduling.
1) Daily: Perform the specified operation at a specified time every day.
2) Sunday ~ Saturday: Perform the specified operation at the specified time on a specified day of the week.
3) Specific Date: Perform the specified operation on the specified date and time.

NOTE • In Standby mode the power indicator will flash green for approx. 3 seconds when at least 1 “Power ON” schedule is saved.
• When the schedule function is used, the power cord must be connected to the projector and the outlet and the power switch must be turned on, [|]. The schedule function does not work when the power switch is turned off, [○] or the breaker in a room is tripped. The power indicator will lights orange or green when the projector gets is receiving the power.

e-Shot (Still Image Transfer) Display



The projector can display a still image that is transferred via the network.

Communication Port

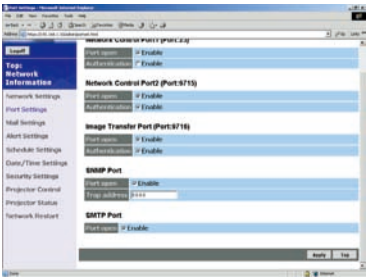
The following port is used for e-Shot.
TCP #9716
(*9***)**

NOTE • e-Shot is not available via communication ports which are used for the command control (TCP #23 and TCP #9715).

e-Shot (Still Image Transfer) Settings

Configure the following items from a web browser when e-Shot is used.
Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10]** into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Port settings]** on the main menu.
4) Click the **[Enable]** check box to open the **[Image Transfer Port (Port: 9716)]**. Click the **[Enable]** check box for the **[Authentication]** setting when authentication is required, otherwise clear the check box.
5) Click the **[Apply]** button to save the settings.



e-Shot (Still Image Transfer) Settings (Continued)

When the authentication setting is enabled, the following settings are required.

6) Click **[Security Settings]** on the main menu.
7) Select **[Network Control]** and enter the desired authentication password. * see Note1
8) Click the **[Apply]** button to save the settings. * see Note2

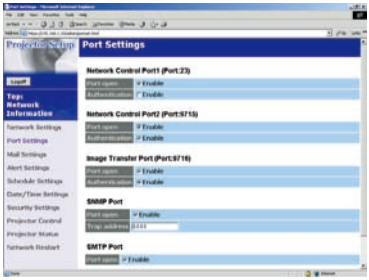
NOTE1 • The Authentication Password will be the same for **[Network Control Port1 (Port: 23)]**, **[Network Control Port2 (Port: 9715)]**, and **[Image Transfer Port (Port: 9716)]**.

NOTE2 • The new configuration settings are activated after restarting the network. Restart the network connection when any configuration settings are changed. The network connection can be restarted using **[Network Restart]** on the main menu.

e-Shot (Still Image Transfer) Transmission

e-Shot transmission requires an exclusive application for your PC. You can download it from the Hitachi web site. Refer to the manual for the application for instructions.

Command Control via the Network



You can configure and control the projector via the network using RS-232C commands.

Communication Port

The following two ports are assigned for the command control.

TCP #23
TCP #9715

NOTE • Command control is not available via communication port (TCP #9716) that is used for the e-Shot transmission function.

Command Control Settings (📖9)

Configure the following items from a web browser when command control is used.
Example: If the IP address of the projector is set to 192.168.1.10:

1) Enter **[https://192.168.1.10]** into the address bar of the web browser.
2) Enter the Administrator ID and Password and click **[Logon]**.
3) Click **[Port settings]** on the main menu.
4) Click the **[Enable]** check box to open **[Network Control Port (Port: 23)]** to use TCP #23. Click the **[Enable]** check box for the **[Authentication]** setting when authentication is required, otherwise clear the check box.
5) Click the **[Enable]** check box to open **[Network Control Port (Port: 9715)]** to use TCP #9715. Click the **[Enable]** check box for the **[Authentication]** setting when authentication is required, otherwise clear the check box.
6) Click the **[Apply]** button to save the settings.

Command Control Settings (Continued)

When the authentication setting is enabled, the following settings are required. **(📖*20*)**

7) Click **[Security Settings]** on the main menu.
8) Click **[Network Control]** and enter the desired authentication password. * See Note1.
9) Click the **[Apply]** button to save the settings. * See Note2.

NOTE1 • The Authentication Password will be the same for **[Network Control Port1 (Port: 23)]**, **[Network Control Port2 (Port: 9715)]**, and **[Image Transfer Port (Port: 9716)]**.

NOTE2 • The new configuration settings are activated after restarting the network. Restart the network when any configuration settings are changed. The network connection can be restarted using **[Network Restart]** on the main menu.

Command format

Command formats differ among the different communication ports.

TCP #23

You can use the RS-232C commands without any changes. The reply data format is the same as the RS-232C commands. However, the following reply will be sent back in the event of authentication failure when authentication is enabled.

<Reply in the event of an authentication error>

Reply	Error code	
0x1F	0x04	0x00

TCP #9715

Send Data format

The following formatting is added to the header (0x02), Data length (0x0D), Checksum (1byte) and Connection ID (1 byte) of the RS-232C commands.

Header	Data length	RS-232Ccommand	Checksum	Connection ID
0x02	0x0D	13 bytes	1 byte	1 byte

Header → 0x02, Fixed
Data length → RS-232C commands byte length (0x0D, Fixed)
RS-232C commands → RS-232C commands that start with 0xBE 0xEF (13 bytes)
Check Sum → This is the value to make zero on the addition of the lower 8 bits from the header to the checksum.
Connection ID → Random value from 0 to 255 (This value is attached to the reply data)

Reply Data format

The connection ID (the data is same as the connection ID data on the sending data format) is attached to the RS-232C commands reply data.

<ACK reply>

Reply	Connection ID
0x06	1 byte

<NAK reply>

Reply	Connection ID
0x15	1 byte

<Error reply>

Reply	Error code	Connection ID
0x1C	2 bytes	1 byte

<Data reply>

Reply	Data	Connection ID
0x1D	2 bytes	1 byte

<Projector busy reply>

Reply	Status code	Connection ID
0x1F	2 bytes	1 byte

<Authentication error reply>

Reply	Authentication Error code		Connection ID
0x1F	0x04	0x00	1 byte

Automatic Connection Break

The TCP connection will be automatically disconnected after there is no communication for 30 seconds after being established.

Authentication

The projector does not accept commands without authentication success when authentication is enabled. The projector uses a challenge response type authentication with an MD5 (Message Digest 5) algorithm.
When the projector is using a LAN, a random eight bytes will be returned if authentication is enabled. Bind this received 8 bytes and the authentication password and digest this data with the MD5 algorithm and add this in front of the commands to send.

Following is a sample if the authentication password is set to “password” and the random eight bytes are “a572f60c”.

1) Select the projector.
2) Receive the random eight bytes “a572f60c” from the projector.
3) Bind the random eight bytes “a572f60c” and the authentication password “password” and it becomes “a572f60cpassword”.
4) Digest this bind “a572f60cpassword” with MD5 algorithm.
   It will be “e3d97429adffa11bce1f7275813d4bde”.
5) Add this “e3d97429adffa11bce1f7275813d4bde” in front of the commands and send the data.
   Send “e3d97429adffa11bce1f7275813d4bde”+command.
6) When the sending data is correct, the command will be performed and the reply data will be returned. Otherwise, an authentication error will be returned.