PLUS
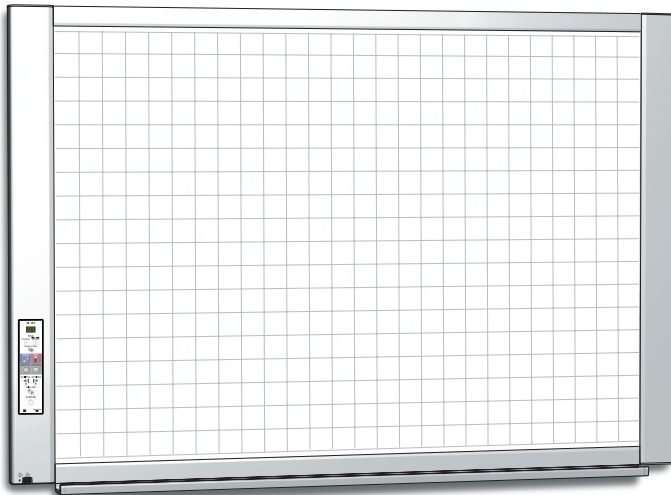
N-21/C-21 Series
Network Manual

Thank you for your purchase of the PLUS Networkboard/Captureboard. Please read this N-21/C-21 Series Network Manual carefully before use to take full advantage of the functions of this product. Also read the separate User's Manual as appropriate. After you have finished reading the manuals, please keep them for future reference.

Introduction

This manual is for the Networkboard (model:N-21S/N-21W/N-214) and the Captureboard (model:C-21S/C-21W), providing how to use this product on a network.
For using the Networkboard and the Captureboard, refer to the separate "N-21/C-21 Series User's Manual".

- Via wired LAN you can:
  - view images stored on the main unit via a network. (multiple save location setting information can be registered)
  - store images on an FTP server via a network. (multiple save location setting information can be registered)
  - print out scanned images to a FTP supported network printer.
- Via Wireless LAN access point you can:
  - remotely operate the main unit from a smartphone and save board images on the smartphone via Wi-Fi communication. Saved images can be sent to email, Evernote, or Dropbox.
  - remotely operate the main unit from a web browser on a computer and send board images to the computer via Wi-Fi communication.

Cautions on using networks

About the network connection environment
- The required operating environment is subject to change without notice. Also, PLUS does not guarantee all operations.
- Even if all required operating environment conditions are met, it may happen that operations do not work properly or that some problems arise. Depending on the communications status, displays may be delayed and communication errors may occur.

Disclaimer
- PLUS will accept no responsibility whatsoever for any consequences of problems of communication impediments in connected devices due to the network functions.
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Cautions on security with wireless LANs

For information on security when using wireless LAN devices, refer to the wireless LAN device's instructions.
With wireless LAN devices and wireless LAN access points, there is a risk that malicious third parties could intercept the radio waves and secretively view passwords, confidential information and other contents of communications.
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(4) Notwithstanding Section (3), this company will not be responsible for any claims of loss or profit or other matters deemed to be the result of using this unit.
(5) Since printer connected with the main unit is based on the use as a peripheral device for this machine, we do not warrant direct connection with a computer.
(6) Manuals with incorrect collating or missing pages will be replaced.

Table of Contents

Meaning of the Terms Used in this Manual
• Main unit (or set): This refers to the networkboard or captureboard.
• USB memory: refers to USB flash memory.
• USB memory storage: means the saving of sheet surface data using MEMORY (i.e., the USB port) of the operation panel.
• Memory for computer storage: indicates a temporary saving location of the image that has been read.
• "copy": Both "print" and "USB memory saving" mean to "copy."
• "Sheet surface": refer to the drawing portion.
• "Scroll" or "move": indicates feeding of the sheet
• Memory for network storage: Memory used for network storage.
• Network: The communications network on which devices are interconnected in net fashion for communication (exchange of data) between the devices. For this machine, the "network" indicates the LAN below.
• LAN (Local Area Network): A closed communications network for communicating within a restricted area, such as within a company.
• FTP (File Transfer Protocol): The protocol (communications rules) used when transferring files on a TCP/IP network.

Setting before using a network

Simple Network Settings (via USB)

Upon purchase (by default), the main unit's IP address and subnet mask are not yet set. When first connecting the main unit to a network to use it, use the simple network settings to set the main unit's IP address on the network following the procedure below.

Notice

- When making network settings, following the instructions of the network administrator.
- It is not possible to format the computer storage memory from the computer.
- Do not press operation buttons on the main unit while the computer storage memory is being accessed from the computer. Doing so will result in increased time for response between the computer and main unit, and operations may not be possible.

1 **TTurn on the main unit's power and connect the main unit's computer USB port for (type B) to the computer using a USB cable.**
- The standard driver is installed automatically and the main unit is recognized by the computer as a removable device.

USB cable included with this machine

To USB port on computer (type A)

To main unit's computer USB port (type B)
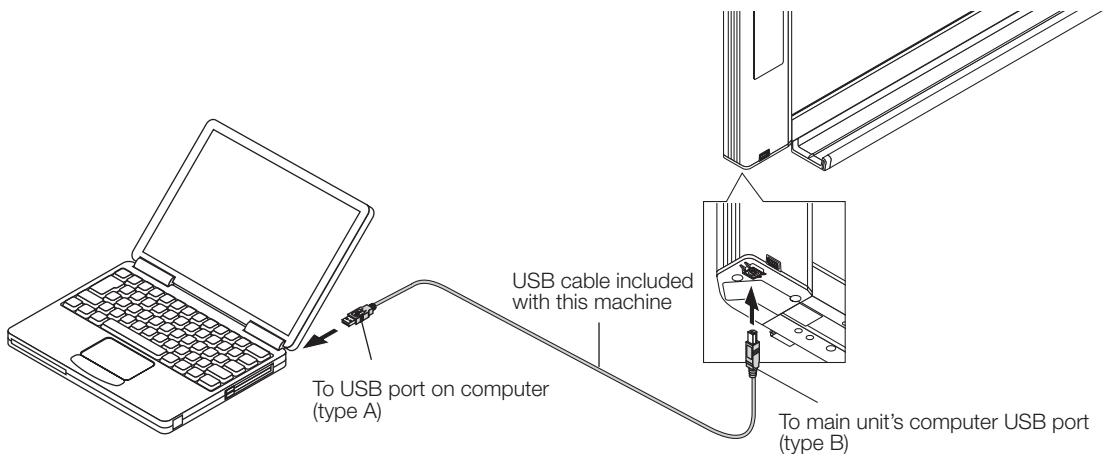
2 **Start up Explorer, and in this open the main unit (removable device).**
When this unit's device (the model name is displayed) is double-clicked, this unit's memory for computer storage opens.

3 **Use a program on the computer (Notepad, etc.) to open the "setting.ini" file in the "setup" folder.**
1 Double-click the "setup" folder to open it.
2 Open the "setting.ini" file (text format) located in this folder using Notepad or another program on the computer and directly overwrite the contents of the settings file.
- The only characters that can be input are numbers and periods.
  Do not insert any spaces. If so, the file will be identified as corrupt when the main unit is started and the settings will be reset to the defaults.

Contents upon purchase and when network settings are reset

Version:04.00.00.05.00.00.00.52 .... Displays the firmware version of the main unit
MAC Address .... Displays the MAC address of the main unit
Terminal Name .... Displays the terminal name of the main unit
----
DHCP=off .... Input the DHCP
IP Address= .... Input the IP address.
Subnet Mask= .... Input the subnet mask.
Default Gateway= .... Input the default gateway if necessary.

Item	Item name	Setting	Default
Firmware version	Version	Cannot be changed	
MAC address	MAC Address	Cannot be changed	
Terminal name	Terminal Name	Cannot be changed	
DHCP	DHCP	Off: Manual On: Auto	On
IP address	IP Address	Any value	Blank
Subnet mask	Subnet Mask	Any value	Blank
Default gateway	Default Gateway	Any value	Blank

Example of setting

(To manually assign an IP address)
DHCP=off
IP Address=192.168.11.120
Subnet Mask=255.255.255.0
Default Gateway=192.168.11.1

(To automatically assign an IP address)
DHCP=on
IP Address=
Subnet Mask=
Default Gateway=

4 Save the "setting.ini" settings file, overwriting the previous file.

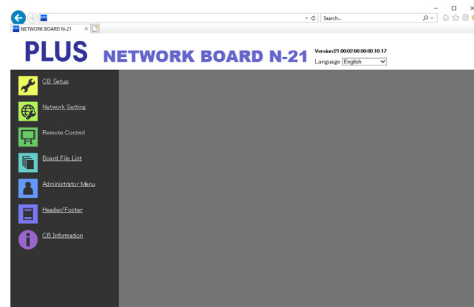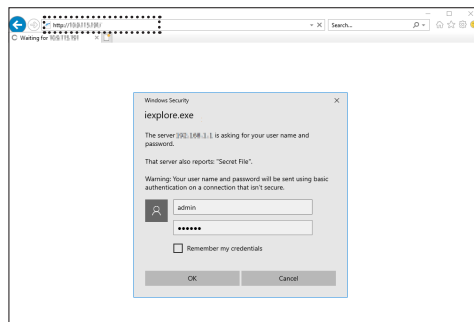Save to location: "setup" folder on the main unite (removable disk)
File name: setting.ini

• We recommend making a note of changed settings for future reference.

5 Check the connection.

1 Connect one end of the LAN cable to the LAN port of the lower side of the main unit and connect the other end of the LAN cable to a network device such as a router and a switching hub.

2 Launch a web browser (ex.: Internet Explorer) on a computer connected to network.

3 In the address field, input the IP address that was set or the terminal name of the main unit, and then press the [Enter] key.
When the main unit has been correctly connected to network, the user authentication screen appears.

• No password is set upon purchase.
Input "admin" in alphanumeric characters in the User Name field and click [OK].

If this machine's top screen does not open
- Have you made a mistake inputting the IP address that was set?
- Is the main unit's LAN terminal properly connected to a LAN port on the network?
- When using a proxy server, add the main unit's IP address to the "Exceptions" in the proxy's settings to set so that the proxy is not used.

If DHCP is set to [Off] (default setting upon purchase), the problem may be caused by the following:
- Is the IP address that was set being used by another device?
- If multiple units of this mashine are connected, are they connected to the network with the same IP address?
- Is the IP address that was set within the automatic acquisition range of the DHCP of the router, etc.?

Using the main unit connected to a network

When connecting to the network the first time

(1) Make the settings of the IP address, etc., required for connecting the main unit to the network. See "Simple Network Settings (via USB)" (page E-4).

(2) Use a commercially available LAN cable (10Base-T or 100Base-TX straight cable) to connect the main unit's LAN terminal to the LAN port on a hub, etc.

(3) Make the main unit's network settings or FTP server settings from a web browser. (See "Making Detailed Settings (via LAN)" on page E-7.)
If you plan to store image files on an FTP server, create the folder for storing the files on the FTP server. Ask your network administrator for instructions on settings and creating the folder.

Notice

• Be sure to transfer important image files stored on the main unit itself to a computer (data backup). If the network board should for some reason malfunction, depending on the malfunction the stored data may be lost or become impossible to transfer. Note that PLUS will accept no responsibility whatsoever for loss of data, etc.

• This machine will not operate properly if the firewall is activated.

Making Detailed Settings (via LAN)

Use this procedure to make the main unit device settings ("CB Setup"), network settings, etc., with the main unit connected to a local area network (hereafter referred to as "LAN" or "the network") using a computer's web browser.

Access authority is required to make the detailed settings. There are two levels of authority – "administrator authority" and "file list browsing authority". The selectable menu items (some setting items) are restricted accordingly. To register the administrator, see "Administrator Menu — User Setting" on page E-15 and to register the user, see "Network Setting — Save Setting" on page E-14.

Table of Menu Items and Access Authority Levels

Menu Item		Some Setting Items	Administrator Authority	File List Browsing Authority
CB Setup			○	—
Network Setting	Board/Printer Setting		○	—
	Save Setting		○	—
Remote Control			○	○
Board File List		Preview and Download	○	○
		Delete	○	—*
Administrator Menu	User Setting		○	—
	Security Setting		○	—
	Disk management Setting		○	—
Header/Footer			○	—
CB Information			○	—

○ mark: Accessible : — mark: Not accessible

* When the "Delete User Image Data" security setting is set to "Valid", deleting is possible with file list browsing authority.

Notice

• When connecting the main unit to the network, be sure to consult the network administrator before making the settings.

Note

• Depending on the network being used, the display speed and button response may be slow and operations may not be performed. If this happens, consult your network administrator. Also, the main unit may not respond if buttons are operated successively. In this case, wait awhile then operate again. If there is no response after a while, turn off the main unit's power, then turn the power back on.

• If the top screen does not display with a web browser, press the [Ctrl] + [F5] keys to refresh the web browser's screen.

• This machine uses JavaScript and cookies. Set the web browser so that these functions will operate.

• This machine performs automatic page reading (redirecting). Set the web browser so that this function will operate.

Basic Setting Operations

Here we explain how to display and close the settings screens, using the Internet Explorer web browser as an example.

Preparations:

1. Use a LAN cable to connect the main unit's LAN terminal to the LAN port on the switching hub.
2. Turn on the main unit's power.

1

Launch the web browser on the computer connected to the network.

"Page cannot be displayed" may in some cases appear, but simply continue to the next step.

2

Input the main unit's IP address.

In the web browser's URL field, input the IP address that was set, and then press the [Enter] key. Entry must be in alphanumeric characters. When the main unit has been correctly connected to network, the user authentication screen appears.

Input the User Name and Password, and then click [OK].

• No password is set upon purchase. Input "admin" in alphanumeric characters in the User Name field and click [OK].

> **Note**
>
> • The user name and password are case sensitive. Be sure to input them properly.
> • The account is locked after three incorrect password attempts. To unlock, unplug the power cord from the power outlet then plug it back in.
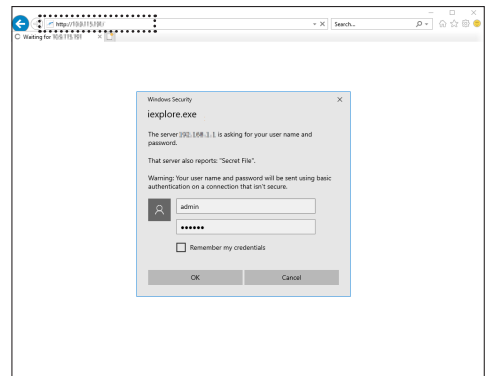
Connecting the main unit to the network upon purchase

Upon purchase, the main unit's IP address and subnet mask are not yet set. Be sure to check the section "Simple Network Settings (via USB)" (see page E-4) and set the IP address, etc.

3

From the menu, click the desired setting item.

The page you required is displayed.

See the description on each appropriate page.

• CB Setup (page E-10)
• Network Setting
 Board/Printer Setting (page E-12)
 Save Setting (page E-14)
• Remote Control (page E-26)
• Board File List (page E-23)
• Administrator Menu
 User Setting (page E-15)
 Security Setting (page E-16)
 Disk Management Setting (page E-17)
• Header/Footer (page E-18)
• CB Information (page E-18)
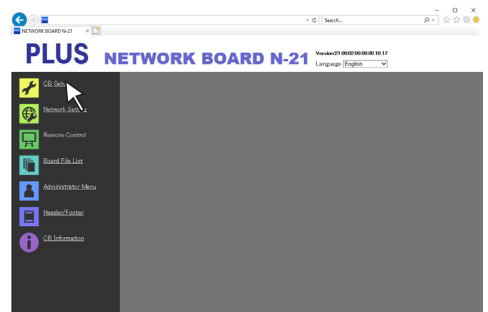
4 **Make the changes or settings.**
The screen at the right is an example of what may be displayed, here showing the "CB Setup" page.
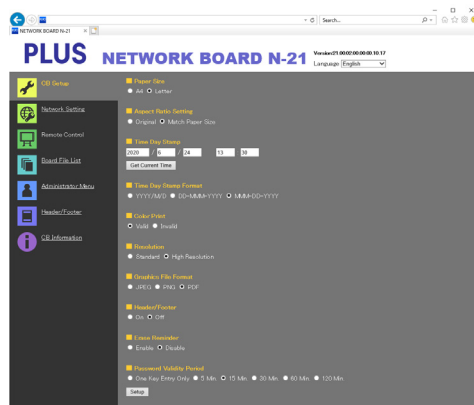
Selecting and inputting
Radio buttons
One of the selection items can be selected. When ○ is clicked, it switches to ⦿.

Input boxes
When a box is clicked, the arrow cursor switches to the " | " character input cursor. Input characters in the same way as you would on a computer.
• The characters that can be input are restricted according to the item's type of setting. (See page E-12, E-14, E-15)

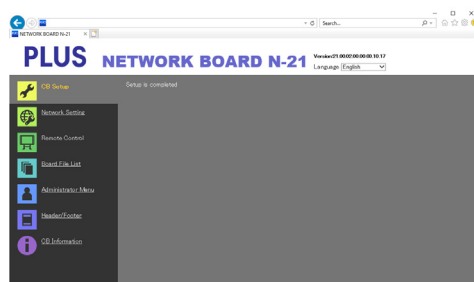**Browse and Upload buttons**
See "Header/Footer". (Page E-18)

Setup button
When clicked, the settings/changes are sent to the main unit, overwriting previous settings.
Once overwriting is completed, the "CB Setup" page switches to the "Setup is completed" character display.

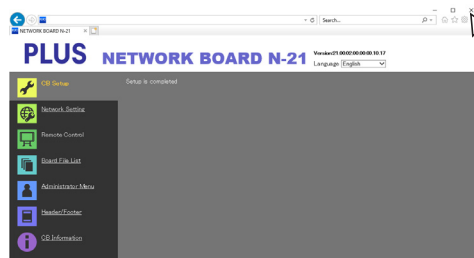• If the IP address in the network settings, etc., has been changed, the main unit reboots. (See page E-13.)

> **After making settings or changes, be sure to click the "Setup" button to overwrite the previous settings on the main unit.**
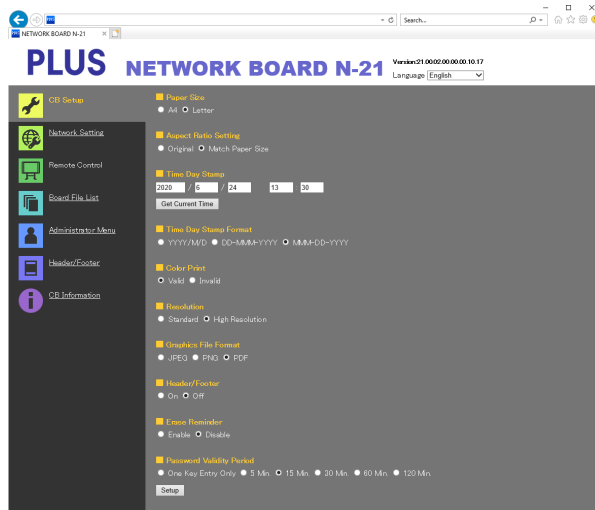
5 **Close the web browser.**
Click the web browser's close button ([X]) to close it.

CB Setup

This is the page where the main unit's various functions are set and changed. The settings are the same as on "Table of Function Numbers and Settings" in the section on making the settings operating the main unit's buttons.

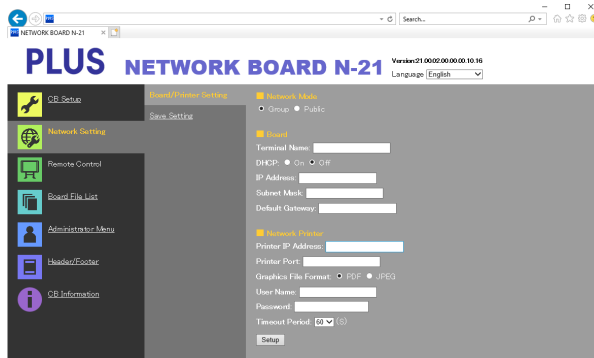| Copyboard Setting Item	Setting/Description	Default
Paper size	Select the printing paper size.	Letter/A4 (North America/Other)
Aspect Ratio Setting	Select the aspect ratio for printing.	Match to printing paper size
Time Date Stamp	Set the main unit's date and time. Input as follows: Year: 4 digits, Month: 2 digits (Ex.: 03 for March), Day: 2 digits (Ex.: 06 for the 6th), Hours: 2 digits in 24-hour mode (Ex.: 14 for 2 pm, 06 for 6 am), Minutes: 2 digits (Ex.: 00 for 0 minutes) • Do not insert spaces. If the date and time setting values are incorrect, an error message is displayed. Get Current Time: When the "Get Current Time" button is clicked, the display switches to the computer's current time. This eliminates the need to make the current date and time setting.	
Time Day Stamp Format	Select the format in which the date and time are displayed. Example: YYYY/M/D 2020/1/23 01:23 DD-MMM-YYYY 23-Jan-2020 01:23 MMM-DD-YYYY Jan-23-2020 01:23	MMM-DD-YYYY/ DD-MMM-YYYY (North America/Other)
Color Printing	Color printing can be set to Valid or Invalid.	Valid
Resolution	Select the resolution at which scanned images are saved.	Standard
Graphics File Format	Select the format in which scanned images are saved.	PDF
Header/Footer	Set whether or not to output the header/footer information registered on the main unit.	Disable (Off)
Erase Reminder	Set the erase reminder function.	Disable
Print from Captureboard printer (model:C-21S/C-21W)	Enables printing from the printer connected to the captureboard using the computer.	Disable

Copyboard Setting Item	Setting/Description	Default
Password Validity Period	• This sets the time for which the password. The password is issued or shown when the Show password button on the smartphone application (MTG Pocket (Note 1)), at which time the password is displayed on the display window on the main unit's control panel. • When set to "One Key Entry Only", only one command is only accepted once after the password is issued. To perform remote control again, issue a new password by pressing the Show password button.	15 minutes
Setup	When the [Setup] button is clicked, the above settings/changes are sent to the main unit, overwriting previous settings. Once overwriting is completed, the "CB Setup" page switches to the "Setup is completed" character display.	

(Note 1) MTG Pocket is an app for smartphone, which allows you to remotely operate the main unit from your smartphone and import images of writing on the board. The "MTG Pocket" operating instructions can be viewed from the application's help file and on the following PLUS website: http://www.plus-vision.com/en/product/mtg_pocket/

Network Setting — Board/Printer Setting

Make the settings for the IP address of the main unit and the network printer..

Board/Printer Setting Item		Setting/Description	Default
Network mode		Selection of the network mode. Group: Setting for storing data on the main unit or FTP server Public: Setting for storing just single panel of data on the main unit one at a time and acquiring it via a browser or smartphone application. * After the selection is made, the system reboots when the Save button is pressed.	Group
Board	Terminal Name	Input the Terminal Name of the main unit on the network. • The terminal name must be 15 alpha numeric characters or less. Available symbol is "- (Hyphen)" only. A combination of numbers cannot be used.	Model name - last 6 digits (Example: N-21-ABCDEF)
	DHCP	Select to assign an IP address automatically or manually. On: The DHCP server on the network automatically assigns an IP address, Subnet Mask, and Default Gateway. Off: Assigns an IP address, Subnet Mask, and Default Gateway manually.	On
	IP Address	Assign the IP address of the main unit manually. If connecting to a network using the DHCP of a router, change to an IP address outside of range of automatic acquisition.	Blank
	Subnet Mask	Set the Subnet Mask of the main unit manually.	Blank
	Default Gateway	Set the Default Gateway of the main unit manually.	Blank
Network Printer	Printer IP Address	Set IP address which is displayed in the Network setting field of FTP supported network printer or "PrinterServer for PLUS Copyboard".	Blank
	Printer Port	Set port number which is displayed in the Network setting field of FTP supported network printer or "PrinterServer for PLUS Copyboard".	Blank
	Graphics File Format	Set graphic format in which image is sent to FTP supported network printer or "PrinterServer for PLUS Copyboard". When using "PrinterServer for PLUS Copyboard", select JPEG.	PDF
	User Name	This is a user name which was registered in the Network setting field of FTP supported network printer or "PrinterServer for PLUS Copyboard". The User Name must be 32 alphanumeric characters or less. See List of Available Symbols.	Blank
	Password	This is the password which was registered in the Network setting field of FTP supported network printer or "PrinterServer for PLUS Copyboard" The Password must be 32 alphanumeric characters or less. See List of Available Symbols	Blank

Board/Printer Setting Item		Setting/Description	Default
Network Printer	Timeout period	Set the timeout period for communications with the Network Printer. Set this according to the usage environment.	60

Setup		• When Board is set or changed
		  When the [Setup] button is clicked, the above settings/changes are sent to the main unit, overwriting previous settings. Once overwriting is completed, the display switches to the "Setup is completed. Rebooting. Wait for a while." character display. During rebooting, the main unit's display window LEDs flash in circular motion. Wait until they turn off. After rebooting, the web browser will not be updated automatically.
		• When Network Printer is set or changed
		  When the Network Printer is set or changed, "Setup is completed" is displayed. Rebooting will not be done.
			—

Important Notice

• When "Setup" is pressed after choosing Public in Network Enabled Mode hollwing pop up menu will apper asking if you will erase the screen data.

Network Setting — Save Setting

Set the location in which the main unit's scanned images are saved.
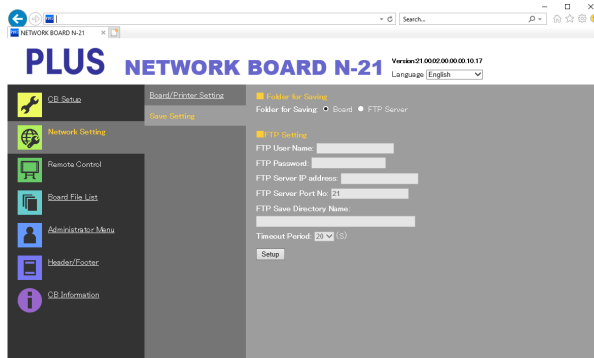
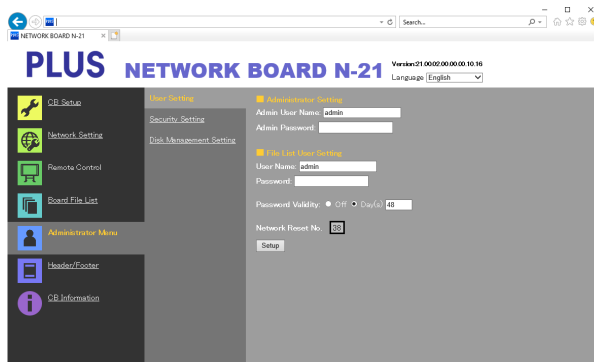| Save Setting Item		Setting/Description	Default
Folder for saving		Set the folder in which the main unit's scanned images are saved. Board: The images are saved on the main unit. FTP Server: The images are saved in the specified folder on the FTP server.	Board
FTP Setting	FTP User Name	This is the user name registered on the FTP server. This is required for the main unit to log in to the FTP server and save image files. • Input 32 alphanumeric characters or less. See List of Available Symbols.	Blank
	FTP Password	This is the password registered on the FTP server. This is required for the main unit to log in to the FTP server and save image files. • Input 32 alphanumeric characters or less. See List of Available Symbols.	Blank
	FTP Server IP Address	Input the FTP server's IP address.	Blank
	FTP Server Port No	This is the FTP server's standard control port number. Normally use with this number. If the FTP server's port number has been changed, change this following the instructions of the network administrator.	21
	FTP Save Directory Name	Input the name of the subfolder in the FTP server folder in which image files are saved. • Input 200 alphanumeric characters or less. See List of Available Symbols.	Blank
	Timeout Period	Set the timeout period for communications with the FTP server. Set this according to the usage environment.	20
Setup		When the [Setup] button is clicked, the above settings/changes are sent to the main unit, overwriting previous settings.	—

List of Available Symbols

Symbols available for User Name, Password and FTP Save Directory Name		!	#	$	%	(	)	+	,	-	.	/	;
	=	@	[	\	]	^	_	`	{	}	~		
Symbols available only for User Name and Password	?	*											

Administrator Menu — User Setting

Set the user name and password required for administrator and user verification and the number required for resetting the network settings.

User Setting Item		Setting/Description	Default
Administrator Setting	Admin User name	Set the administrator's user name. • Admin User Name must be 14 alphanumeric characters or less. See List of Available Symbols. The admin user name is case sensitive.	admin
	Admin Password	Set the administrator's password. • Input a password between 8 and 14 characters by combining upper case and lower case alphabets, numbers, and symbols. See List of Available Symbols.	None
File List User Setting	User Name	Set the user name. The limit to the number characters that can be input is the same as for the administrator's user name.	admin
	Password	Set the user name. The limit to the number characters that can be input is the same as for the administrator's user name.	None
Password Validity		Set the validity date for Admin Password and File List User Setting Password. To use days, select the radio button for day and input days.	Off
Network Reset No.		This is the number used for resetting the network settings. (See page E-19) Note: Be sure to make a note of your network reset number in case you should forget it. This number is required to reset the network settings.	—
Setup		When the [Setup] button is clicked, the above settings/changes are sent to the main unit, overwriting previous settings. Once overwriting is completed, the "User Setting" page switches to the "Setup is completed." character display.	—

Caution

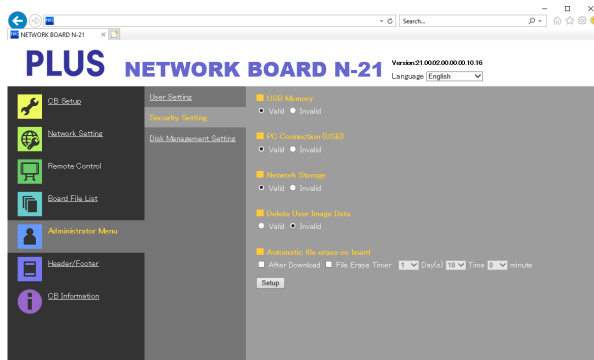• Copy down the user settings in case you should forget them.

Admin User name   ☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Admin Password   ☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Network Reset No.   ☐☐

Administrator Menu — Security Setting

These security settings can be made to restrict access to setting items.

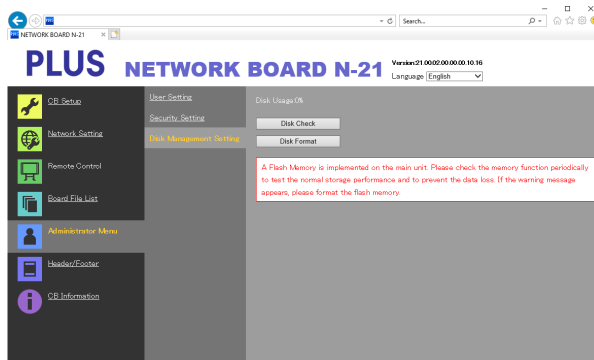| Security Setting Item	Setting/Description	Default
USB Memory	Set whether or not to enable or disable saving on USB memory devices.	Valid
PC connection (USB)	Set whether or not to enable or disable saving in a computer storage memory.	Valid
Network Storage	Set whether or not to enable or disable transfer of image files to network storage (folder for saving: "Board" or "FTP Server") to a computer or FTP server. Notice: • When set to "Invalid", the network storage memory is formatted. Transfer important image files to a computer before setting this.	Valid
Delete User Image Data	Set whether to enable or disable the file list "Delete" function with file list browsing authority. When set to "Invalid", the image files stored on the main unit cannot be deleted.	Valid
Automatic file erase on board	Automatically deletes files stored on the main unit using the selected method. You can also select both "After Download" and "File Erase Timer". After Download: The files stored on the main unit are deleted after they are downloaded. File Erase Timer: Select days and time from the pull down list. The files stored on the main unit are deleted at the specified time. (Files are deleted even if they are not downloaded.)	Not delete files automatically.
Setup	When the [Setup] button is clicked, the above settings/changes are sent to the main unit, overwriting previous settings. Once overwriting is completed, the "Security Setting" page switches to the "Setup is completed." character display.	—

Administrator Menu — Disk management Setting

The amount of disk space used can be checked, the disk can be checked and the disk can be formatted here.

Disk Management Setting Item	Setting/Description	Default
Disk Usage	This displays the amount of network storage memory used (in percentage).	—
Disk Check	When the [Disk Check] button is clicked, checking of the network storage memory starts. When checking is completed, the results of the check are displayed. If a warning is displayed, format the disk.	—
Disk Format	When the [Disk Format] button is clicked, the disk is formatted. Notice: • Transfer important image files to a computer before formatting. All data (including Header/Footer image) stored on the disk are deleted.	—

Header/Footer

This is the screen for registering headers and footers on the main unit and checking the image.
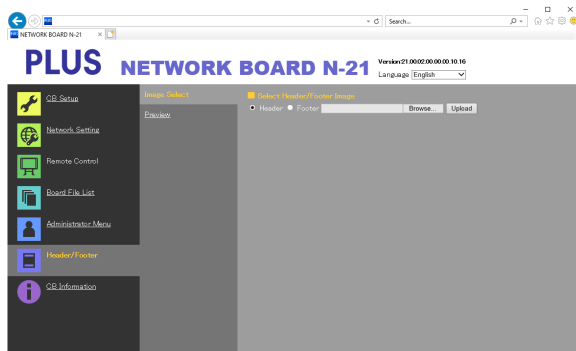
Image Select screen
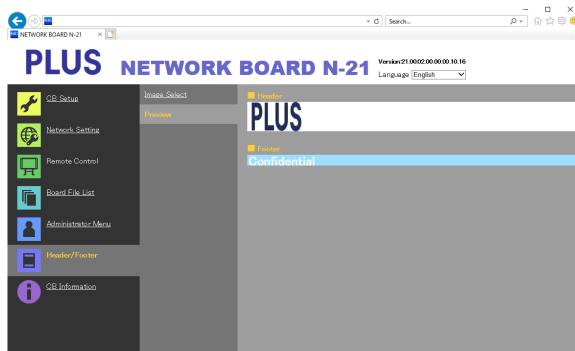
Preview screen

Image Select/Preview Item		Setting/Description	Default
Image Select	Select Header/Footer Image	Select whether the image to be registered on the main unit is a header or footer. Click the radio buttons to select. • For instructions on creating images, see page E-20.	Header
	Browse	When the [Browse] button is clicked, the computer's "Browse Files" screen opens. Select the image, then click the [OK] button to set it.	—
	Upload	This uploads the selected header or footer image to the main unit. When the [Upload] button is clicked, uploading starts. • If an image is already registered on the main unit, that image is over-written.	—
Preview		This displays a preview of the header or footer image registered on the main unit.	—

CB Information

This displays the contents of the detailed settings made on the main unit and the main unit's firmware version.
Note that the passwords are not displayed.
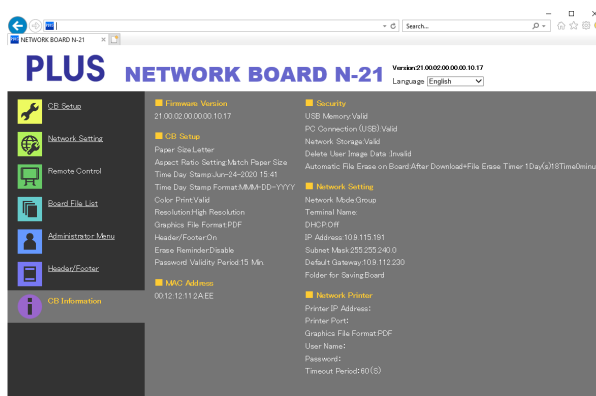
Resetting the Network Settings

Operate the buttons on the main unit to reset the network settings to their defaults.

Setting items that are reset: Admin User name, Admin Password, User Name, Password, IP Address, Subnet Mask, Default Gateway, Folder for saving, FTP User Name, FTP Password, FTP Server IP Address, FTP Server Port, FTP Save Directory Name, Password Validity, Terminal Name, DHCP, Printer IP Address, Printer Port, FTP Print Setting,Timeout period

Notice

• Once reset, the network settings cannot be restored.

1. **While pressing the ON/Standby ⏻ button, press the Network 🖧 button.**

The main unit switches to the network settings reset mode and "00" flashes on the display window.

On/Standby   Network
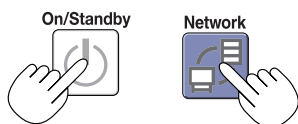
2. **Press the Network Print 🖶 (Increase) or On Board Print 🖶 (Decrease) button to display the network reset number.**

• The network reset number can be viewed when [Administrator Menu] → [User Setting] is selected with administrator authority.

The display switches as follows each time the Network Print (Increase) button is pressed: 01 → 02 → …… → 99 → 00 → 01
The display switches as follows each time the On Board Print (Decrease) button is pressed: 99 → 98 → …… → 01 → 00 → 99

Network Print   On Board Print
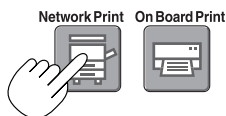
3. **Press the Save 🖴 button to enter.**

To cancel, press the ON/Standby ⏻ button.
When the reset number matches, "LA" flashes for 5 seconds on the display window, then the main unit's network settings are overwritten with the default values and the main unit automatically reboots.

If "LE" flashes for 5 seconds then stops flashing, remaining lit, the reset number is wrong.

• Press the ON/Standby ⏻ button to cancel, then start over from step 1.

Creating and Registering Headers and Footers

The header/footer function allows you to superimpose your company name, logo, etc., at the top or bottom of scanned images for printing or display. The date and time are printed at the top right of the header.

Creating header and footer images

Use your image software to create a JPEG file.
Create the image with the resolutions below.
Max. size for header images: 1248 × 110 dots *   Image format: JPEG
Max. size for footer images: 1248 × 40 dots   Image format: JPEG
* This is sometimes expressed as "pixels".

> **Note**
>
> • Even for image data whose resolution is within the allowable limits, it may happen that the top and bottom of the image are not displayed.

Image display position

Images are displayed at roughly the center in the horizontal direction. In the vertical direction they are positioned next to the scanned image area. Consider this when creating images with less than the maximum size.

Suggestions on creating images

Scan the logo data with an image scanner, save this on the computer as image data, then crop or reduce its size to fit within the specified resolution and save this new data.
Use Windows Paint, etc., to paste images, input characters, etc., to create the image.
When saving, save in JPEG format with a size within the maximum size.

Registering created images on the main unit

Example: Here we explain how to register a header image. Use the same procedure to register footer images.

1. Open the "Header/Footer" screen at Detailed Settings (via LAN). (See page E-18.)
2. Header/Footer Image Select
   • When a preview is selected, click "Image Select" on the submenu.
   Click the "Header" radio button.
3. Select the header image you have created.
   Click the [Browse] button to display the computer's "Browse Files" screen.
   Select the image file to be registered as the header, then click the [OK] button. The file name is displayed.
4. Click the [Upload] button to upload the image to the main unit.
   When uploading is completed, "Completed successfully" is displayed.
   At this time, "HF" flashes on the main unit's display window (for 5 seconds, after which it stops flashing, remaining lit).
   If "Data size is too large" is displayed, the image cannot be registered.
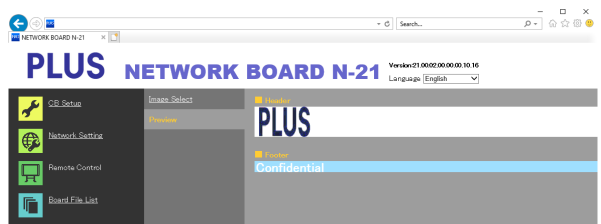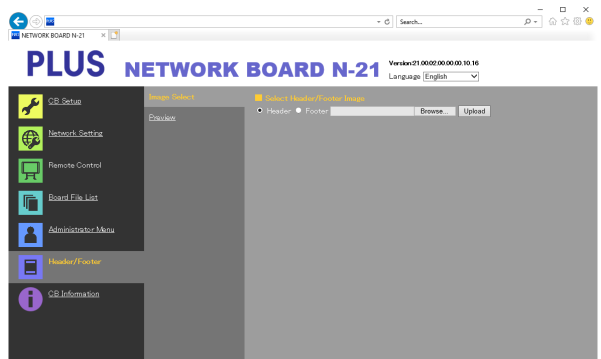   Close the web browser, then adjust the image file's size.

> **Note**
>
> • When headers or footers are registered, the header/ footer function is set to "Enable".
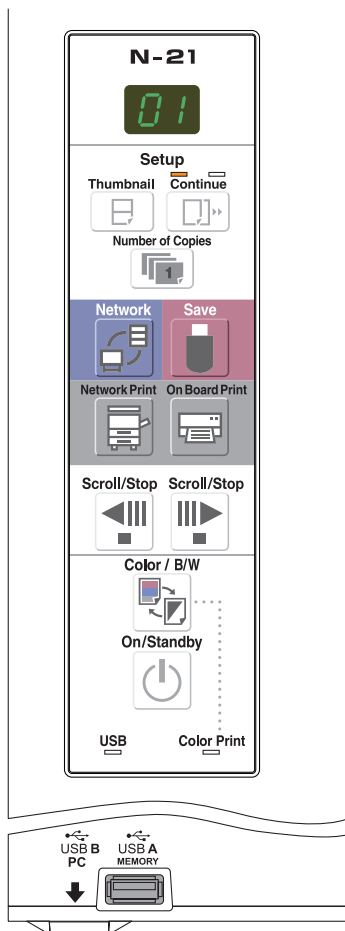
Click "Preview" to check the registered image.
This completes registration. Close the web browser.

The following explanation assumes that the LAN cable has been connected and the various network settings have been completed.

Saving scanned images on the main unit or FTP server

Preparations :
Check that the power plug is connected to a wall power outlet.

**1** **Press the ON/Standby ⏻ button to turn on the power.**

On/Standby

| Note |

- When turning on the power after the power plug has been connected or the power has been turned off (set to the standby mode), wait about 5 seconds or more before pressing the ON/Standby button.
- When the ON/Standby button is pressed and the power turns on, the display window's LEDs light.

2 **Press the Scroll/Stop ◀ or ▶ button to display the screen to be stored.**

Scroll/Stop   Scroll/Stop
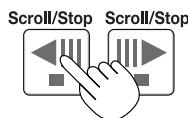
The procedure for displaying the sheet surface to be save is the same as for the printing operation.
Refer to "Printing" on the separate "N-21/C-21 Series User's Manual"

| Note |

- When saving, the visible image (one screen's worth) is saved on the main unit or FTP server.
- When "Board" (network storage memory) is selected as the save to location, approximately 100 image files can be saved.
- It may not be possible to save the edges of the sheet surface. Refer to "Effective Reading Size" on the separate "N-21/C-21 Series User's Manual".

3 **Press the Network ⏚ button to save a scanned image.**

Network

LEDs flash in circular motion during saving in memory

[Display window]

- When the above network storage is done, the reading operation is performed for a one-sheet portion (while the sheet is scrolled) and the read image data will be stored on a specific folder on an FTP server.
  For setting the save setting, see "Network Setting – Save Setting" on page E-14.
- One or more screens can be saved consecutively. Refer to the separate "N-21/C-21Series User's Manual".

Note

- Depending on the network communications conditions, some time may be required for identification and storage.
- If "E8" flashes (for about 5 seconds), "Invalid" is set at "Security Setting" → "Network Storage". (See page E-16.)
- If "L1" to "L5" flashes (for about 5 seconds), this indicates that the network settings are incorrect. (Refer to the separate "N-21/C-21 Series User's Manual".)
- If "FL" flashes (for about 5 seconds), there is not enough space in the save to location. Delete image files to provide space. (See pages E-25.)
- If the ON/Standby ⏻ button is pressed during the scanning operation, saving is interrupted and the image data scanned up to that point is saved.
  To move the sheet surface, wait until scrolling stops, then press the Scroll/Stop button.
- When network storage is done, image files will be saved sequentially on a save location (file name indicates date and time). When consecutive storing is performed, numbers "-1" or "-2" ("-1", "-2", "-3" or "-4" on model N-214) is added to the end of the file name. (Example: When two screens are stored consecutively 20200123_ 012353-1.png, 20200123_ 012353-2.png) When file format is specified to PDF, the files will be merged into one file during the consecutive storage.
  Date and time of saved file are recorded in time of the main unit. For setting time, See "CB Setup" on page E-9 or refer to the separate "N-21/C-21 Series User's Manual".

---

4 When not using the main unit, press the ON/Standby ⏻ button to turn off the power (standby mode).

On/Standby

Printing out to a Network Printer

Prepare a sheet surface you want to print out and press the Network Print button.

Network Print

Perform the reading operation for a one-sheet portion (while the sheet is scrolled) and the image is output to the network printer connected to a network.

- The thumbnails and consecutive printing which is possible on the printer connected to the main unit is also possible on the network printer. For selecting, refer to the separate "N-21/C-21 Series User's Manual".

Note

- To print out to the printer connected to a network, select Network Setting — Board/Printer Setting and set FTP setting beforehand.
- Printers compatible with this machine are FTP supported printers

Transferring image files to/deleting them from the computer

Image files stored in the folder for saving ("Board" or "FTP Server") can be transferred to your own computer. The operation differs according to the setting for where scanned images are stored. (See "Network Setting — Save Setting" on page E-14.)
The image files are saved in JPEG, PNG or PDF (default) format, according to the image format setting. (See "CB Setup" on pages E-10.)

The information below must be input to transfer the files.
If you do not know this information, ask your company's network administrator.
Log in to the folder for saving (meaning connect to the communications path): IP address of the main unit or FTP server
Verification screen:
If the folder for saving is set to "Board" … User name and password registered at "User Setting".
If the folder for saving is set to "FTP Server" … User name and password registered on the FTP server

When the folder for saving is set to "Board"
The scanned images are saved on the main unit. These images are downloaded (transferred) onto the computer connected on the network. Downloading is possible even when the main unit is in the standby mode (but not if the main unit's power is not connected to a power outlet).

1

Launch the web browser on the computer and log into the main unit.
Input the IP address or the terminal name of the main unit and press the [Enter] key. Entry must be in alphanumeric.
• Upon shipment from the factory and when set to the defaults, the main unit's IP address has not been set, so logging in is not possible.

The verification screen opens.
• No password is set upon purchase.
 For the user name, input "admin", then click the [OK] button.
• When a user password is set, input the user name (case sensitive) and password (case sensitive), then click the [OK] button.

When the password is correct, the authentication screen will be closed and the Folder List will be displayed.

• If the password is out of validity, a message of expiration of your password appears. Contact your administrator.

| Note |
|------|
| • We recommend setting a user name and password to prevent unwanted persons from logging in. (See "Administrator Menu — User Setting" on page E-15.) |
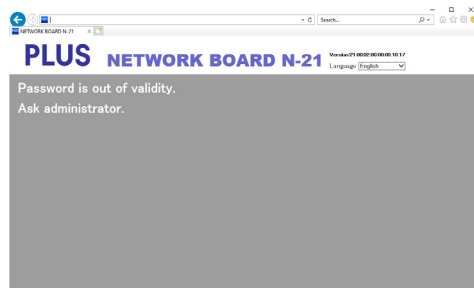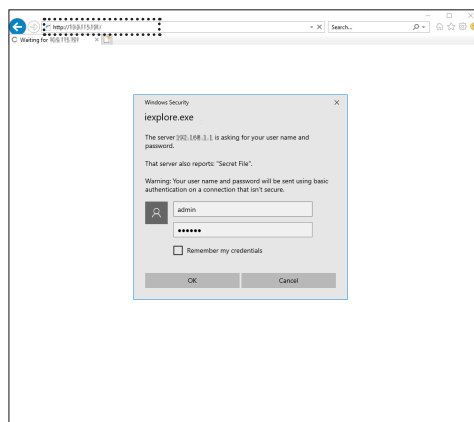
2 **Click the desired date.**

• Image files are managed in groups by date (the date the scanned image files were saved). Because of this, display the date list.

• Check that "Download" is selected for the [Download/Delete] selection button.
When "▼" is clicked, a pull-down list is displayed. Click [Download].
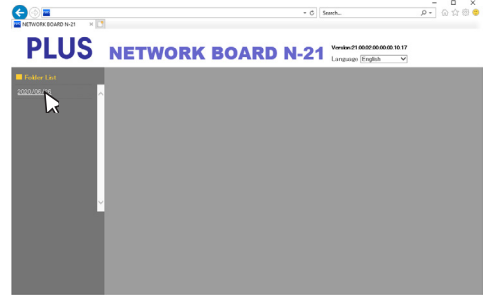
3 **From the file list, select the image to be transferred to the computer.**

When the radio button ○ is clicked, it is checked ⦿ and a preview image is displayed.

[Download/Delete] selection button

4 **Download the image onto the computer.**

(1) Click the [Download] button.
(2) The computer's "Save as …" screen appears.
(3) Select the folder for saving, then click the [Save] button.
Downloading starts.
To download other files, click "Return to the folder List" to return to the file list, then repeat from step 2.

("Return to the folder List")
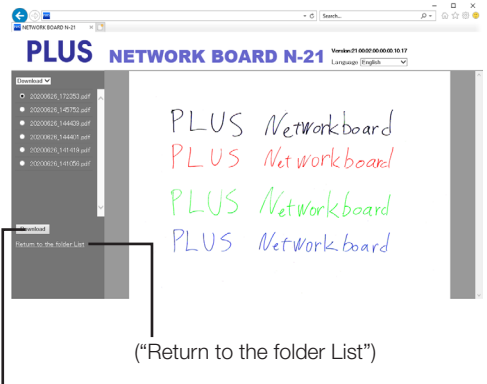
[Download] button

5 **Close the web browser.**

Click the web browser's close button ([X]) to close it.
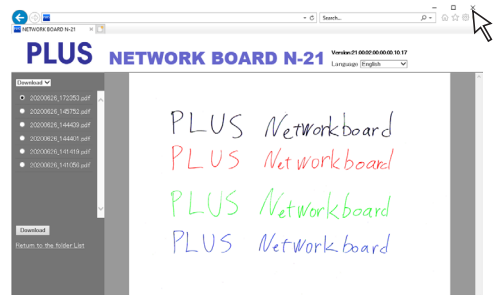
Deleting image files from the main unit

Notice

• When "Invalid" is set at "Delete User Image Data" in "Security Setting", files cannot be deleted. This can be changed to "Valid" with the administrator's authority. (See page E-16.)

1 **Perform steps 1, 2 and 3 on page E-23, E-24 to display the file list screen.**

2 **Select [Delete].**
When "▼" on the [Download/Delete] selection button is clicked, a pull-down list is displayed. Click [Delete].
When [Delete] is selected, the radio buttons switch to checkboxes ☐.

[Download/Delete] selection button
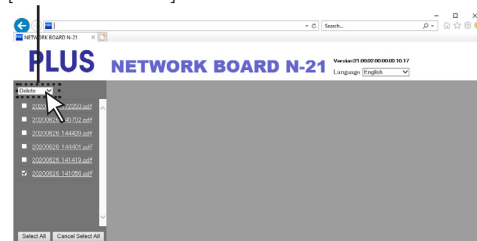
3 **Select the image file to be deleted.**
To select and delete individual files:
Click the checkbox for the image file to be deleted to check it.

To delete all files:
Click the [Select All] button. All the checkboxes are checked. If there are several files you do not want to delete, uncheck the checkboxes for those files.
To uncheck the checkboxes for all the files, click [Cancel Select All] to uncheck all the checkboxes.

Note

• Images are previewed when their file name is clicked.
• Check the scanned images using their preview images before deleting them.
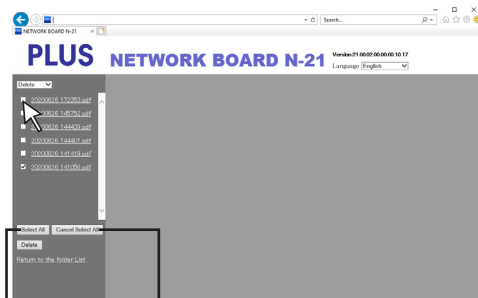
[Cancel Select All] button

[Select All] button

4 **Delete the file(s).**
Be sure to transfer important image files to a computer before deleting them (data backup). Once deleted, the files cannot be retrieved.
When the [Delete] button is clicked, the image files whose checkboxes are checked are deleted.
• When "Invalid" is set at "Delete User Image Data" in "Security Setting", the message "No delete authority" is displayed, indicating that the files cannot be deleted. (See "Administrator Menu — Security Setting" on page E-16.)
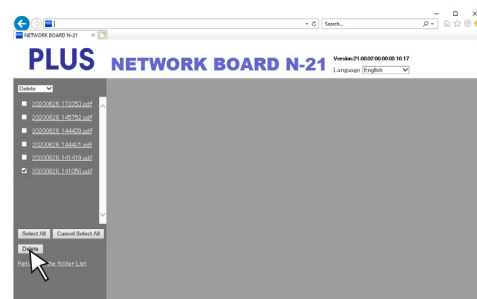
Using the remote operation via a network

You can to operate the main unit remotely from a smartphone or a computer and store images on the main unit surface wirelessly on the smartphone or computer. The "MTG Pocket" (Meeting Pocket) application is operated on smartphones, and the web browser on computers.

This chapterl describes the installation and setting procedures required to use the "MTG Pocket" application on smartphones. The "MTG Pocket" operating instructions can be viewed from the application's help file and on the following PLUS website:

http://www.plus-vision.com/en/product/mtg_pocket/

This chapter also includes instructions on remote control of the main unit with a web browser on a computer.
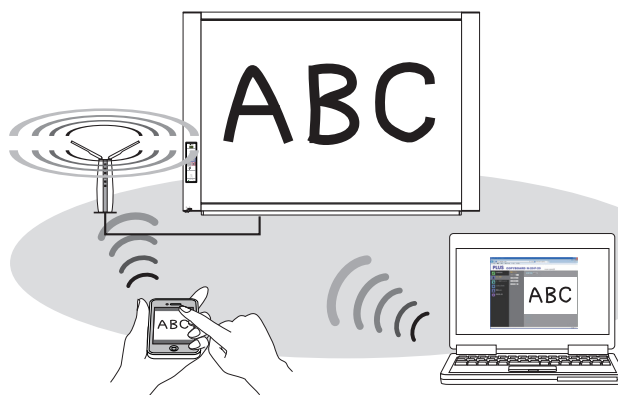
Installation and Settings

Step 1: Connecting the main unit to a network providing wireless LAN access points (page E-27)

Connect the main unit to the same network (wired LAN hub) with the wireless LAN access points. For networks not providing wireless LAN access points, purchase a reguler wireless LAN device.

Step 2: Setting the network mode to "Public" (page E-28)

Switching the main unit's setting to "Public" enables remote control of the main unit using a wireless LAN.

Step 3-1: To use the "MTG Pocket" application (page E-28)

Download the "MTG Pocket" application from a distributor and install it.
The "MTG Pocket" application is used with the smartphone and wireless LAN access point.

Step 3-2: To use a web browser on a computer (page E-31)

Open the web browser on the computer to run the main unit remotely. A computer with built-in wireless LAN or a commercially available wireless LAN adapter is required.

Operating Environment

Network	Wireless LAN access point	Commercially available Wireless LAN Routers
When using a smartphone	Application	"MTG Pocket" application
	Supported OS's	iOS 8 or later (iPhone / iPad)
		Android 2.3 or later
	Application distributor	iOS-compatible: App Store
		Android-compatible: Android Market
When using a computer	Web browser	Windows Internet Explorer 8.0 or later
		Macintosh Safari 5 or later
		JavaScript Enable
	Peripherals	Computer with built-in wireless LAN function or wireless LAN adapter

Note

• Not all operations are guaranteed even under the operating environments described above are met.

Step 1:Connecting the main unit to a network providing wireless LAN access points
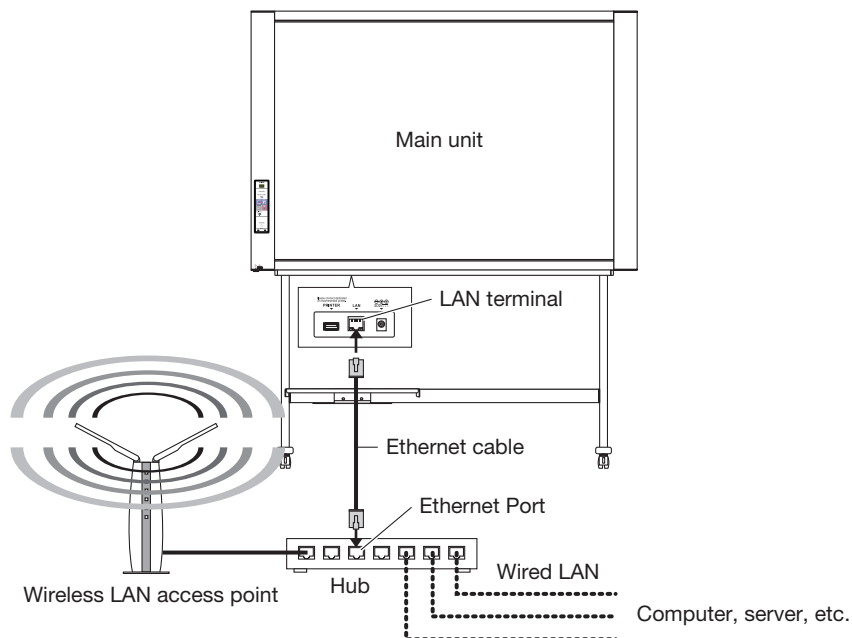
• Connect the LAN terminal on the main unit's bottom panel with a LAN port on a wired LAN providing wireless LAN access points (hub, etc.). Use a commercially available 10Base-T or 100Base-TX straight cable.
• If the wired LAN does not provide wireless LAN access points, connect a commercially available Wireless LAN Routers to the wired LAN. For instructions on connecting and setting, see the respective user's manuals.

Step 2: Setting the network mode to "Public"

• Setting the network mode to "Public" at "Network Setting — Board/Printer Setting"(Page E-12)

Notice

You can change the network mode to "Public" by operating the main unit's buttons. Refer to "CB Setup (Operating the main unit's buttons)" in "N-21/C-21 Series User's Manual".

⚠ **CAUTION**	If you set the network mode to "Public", the screen data saved in the main unit will be deleted.

Step 3-1:To use the "MTG Pocket" application

The "MTG Pocket" smartphone application can be used to scan the main unit's board surface remotely from the smartphone and capture the board data wirelessly into the application. Even writing, diagrams and other fine details on the board surface are stored in clear image files and can be checked using the "MTG Pocket" application. The stored board data can then be sent by e-mail, Evernote, Dropbox, etc.

* Account registration, etc., is required to use Evernote and Dropbox. An Internet connection is also required.
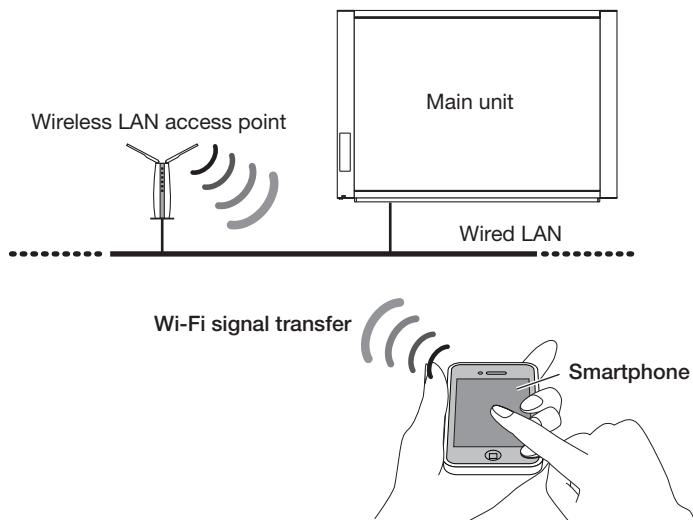
Installing the "MTG Pocket" application on a smartphone (operations on the smartphone)

The following describes the procedure for iOS smartphones.

1. Tap the App Store icon on the home screen to open App Store, then tap the Search icon to display the character input field.

Input the letters "MTG Pocket", then tap the Search icon.

2. Tap "MTG Pocket" on the search list, then tap the Free button. The Free button switches to the Install button.

3. Tap the Install button. Input your Apple ID and password. After several seconds, installation is completed and the "MTG Pocket" application's icon appears on the home screen.

* An Apple ID must be registered to download.

**2 Connecting the wireless LAN and smartphone (operations on the smartphone)**

• Connect the smartphone to the wireless LAN according to your usage environment.

3 Operating the "MTG Pocket" application (operations on the smartphone)
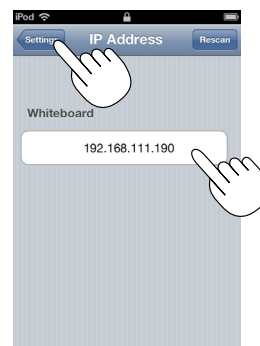
1. From the home screen, tap the MTG Pocket icon to open the MTG Pocket's home screen (hereafter referred to as the App Home Screen).

2. Tap the Settings icon to open the settings menu, then tap IP Address to search for this machine.
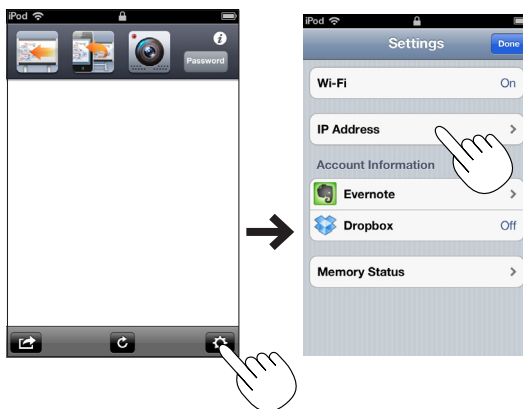
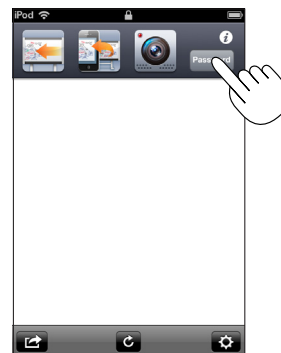**3**. At the IP Address menu, tap the main unit's IP address, then tap the Settings button.

4. On the Settings menu, tap the Done button to close the Settings menu.

**5**. At the App Home Screen, tap the Password button to open the Password Entry menu.

6. Tap the Show password button, input the 2-digit number flashing on the main unit's display window, then tap the Done button.

  * The password is changed automatically after a set amount of time (15 minutes by default). If "Password Error" is displayed during remote control of the main unit, press the Show password button to recheck the password.
    The time after which the password changes can be changed at "Password Validity Period" in CB Setup. (See page E-11.)
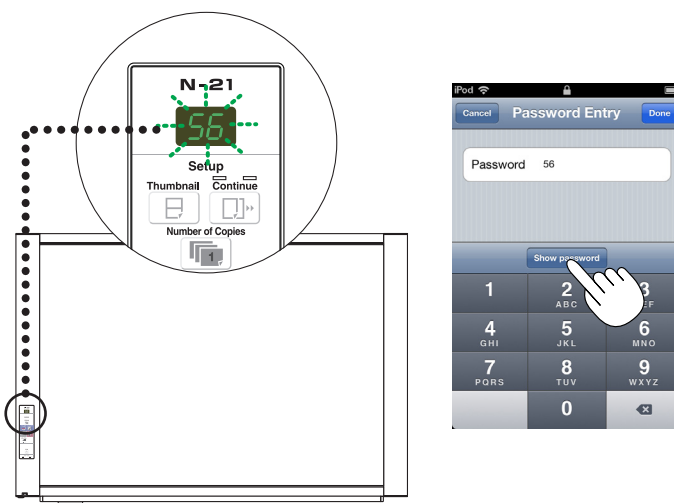
7. Tap the Scan, Feed and Synchronize buttons on the App Home Screen to operate the main unit.

Scan button

Feed button

Help button

Synchronize button
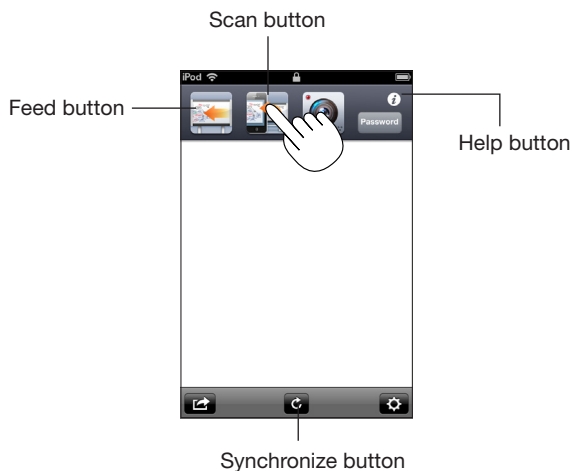
  * The "MTG Pocket" operating instructions can be viewed from the App Home Screen file and on the following PLUS website:

    http://www.plus-vision.com/en/product/mtg_pocket/

Step 3-2:To use a web browser on a computer

A web browser on a computer can be used to scan the main unit's board surface remotely and capture the board data wirelessly onto the computer.
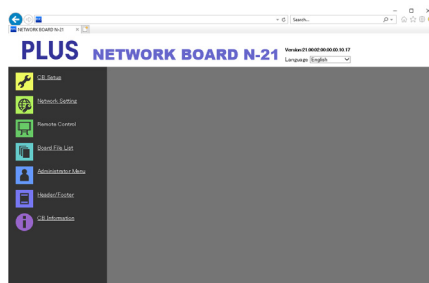
Main unit

Wireless LAN access point

Wi-Fi signal transfer

Wired LAN
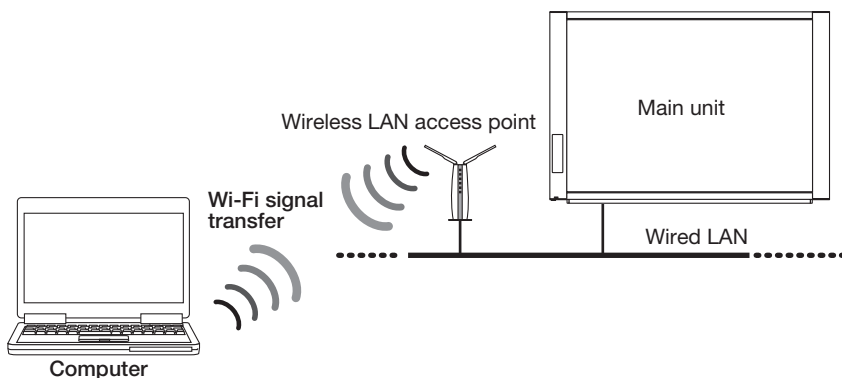
Computer

1 Connecting the wireless LAN and computer(operations on the computer)

• Connect the computer to the wireless LAN according to your usage environment.

2 Controlling the main unit remotely (operations on the computer)

1. Input the main unit's IP address.

Input http://192.168.111.190 in the web browser's URL field, then press the [Enter] key on the computer.

• Input numbers.

• When the main unit is connected, the top screen appears.

2. Click [Remote Control] on the menu to open the control panel.

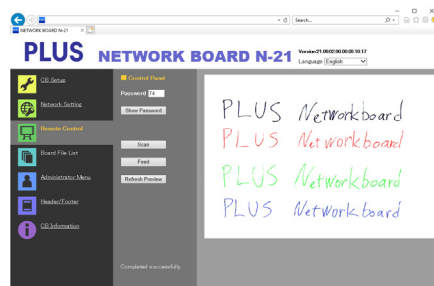**3**. Click the [Show Password] icon, then input the 2-digit number flashing on the main unit's display window into the password field.

　* The password is changed automatically after a set amount of time (15 minutes by default). If "Please make a numeric entry for password" is displayed during remote control of the main unit, press the [Show Password] button to recheck the password.

　The time after which the password changes changed at "Password Validity Period" in CB Setup. (See page E-11.)
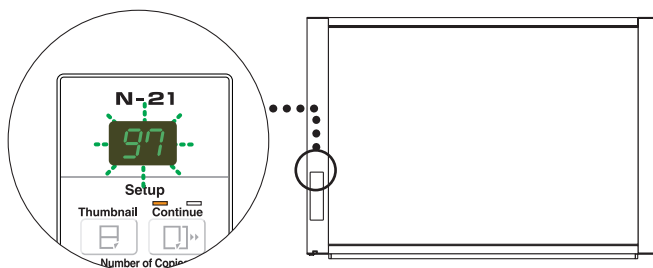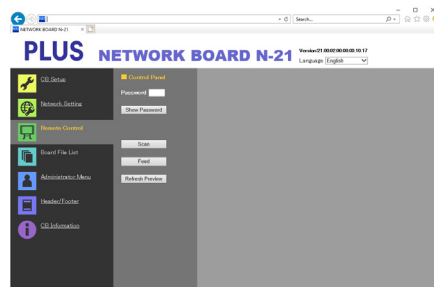
The main unit can now be controlled remotely from the computer.

4. Capturing the board data

(1) Click the "Feed" button on the menu to move to the sheet surface to be captured to the front if necessary.

(2) Click the "Scan" button on the menu to start scanning. Once scanning is completed, the data is sent to the computer and a preview screen appears.

If reception of the image is interrupted due to signal conditions, check the reception mark on the computer and click the "Refresh Preview" button.

(3) To save the image on the computer, right-click the preview screen and click [Save] on the pop-up menu.

Functions of control buttons

Button name	Description
Scan/Cancel	• When the "Scan" button is clicked, the scanning operation starts on the main unit. During scanning, the LEDs on the main unit's display window rotate. Once they stop, the preview screen is displayed. • To save the scanned image on the computer, right-click the preview screen and click [Save]. The "Save as ..." screen appears. Save the image in the desired folder. • When the "Scan" button is clicked, it switches to the "Cancel" button. To cancel scanning, click the "Cancel" button.
Feed/Cancel	• When the "Feed" button is clicked, the sheet surface moves Forward by a panel. • Once the "Feed" button is clicked, it switches to the "Cancel" button. To cancel feeding, click the "Cancel" button.
Refresh Preview	• Refresh the Preview image with the latest scanned image saved in the main unit.

Using the Printer Server for PLUS Networkboard

What is Printer Server for PLUS Networkboard?

The Printer Server for PLUS Networkboard can receive an image read on the main unit, and output to a printer connected to the PC with this software installed.

This software is resident software.

"The Ptiner Server for PLUS Netowkboard" can be downloaded on the following PLUS website:

> https://www.plus-vision.com/en/support/download/software.html

Notice

- This software is not a file server.
- This software is not to provide a printer driver. It is necessary to install a printer driver separately.
- Output to a printer is referring to output to a printer spool. Actual printing operation depends on the PC and the printer, or the connection status of the PC and the printer.

Operating Requirements

Supported OS:	Windows 8 (32 bit/64 bit)
	Windows 10 (32 bit/64 bit)
	.NET Framework 4.0 Client Profile or later
Supported PC:	IBM PC/AT compatible machine that the above OS can operate
CPU:	Core 2 or higher processor
Memory capacity:	2 GB or more
Available HD capacity:	40 MB or more (excluding the image save region)
Interface:	1000Base-T/100Base-TX/10Base-T

Notice

- Not all the operations are guaranteed with the above operating environment.
- Macintosh is not supported.

PLUS Corporation

ISO 14001 certification.