



LCD Monitor Installation and Adjustment Tool

(V Series) Display Installation Tool

Version 1.1

OPERATION MANUAL

Supported Models (as of February 2012)
[Part of the functions of this software may not be available depending on the model.]
LCD MONITOR PN-V600/PN-V601/PN-V602

(Available models differ according to region.)

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Introduction

This software is intended to set the SHARP LCD MONITOR from a personal computer (PC).

- You can change settings two or more LCD MONITORS simultaneously.
- You can set user levels to restrict operations.

IMPORTANT INFORMATION

- Please understand that SHARP CORPORATION bears no responsibility for errors made during use by the customer or a third party, nor for any other malfunctions or damage to this product arising during use, except where indemnity liability is recognized under law.
- Transcribing or duplicating part or all of this manual and/or this software without permission from our company is not permitted.
- As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

Trademarks

- Microsoft, Windows and Windows Vista are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Names of products and other proper nouns are the registered trademarks or trademarks of their respective copyright holders.

How to read this manual

- **Keyboard keys are indicated with square brackets.**
E.g. [Shift] key, [Ctrl] key
- **Menus, windows, dialog boxes, buttons, tabs, etc. are indicated with square brackets.**
E.g.
 1. Click [New...].
The [Enter new schedule name.] dialog box is displayed.
- **Options, check boxes, radio buttons, etc. are indicated with quotation marks.**
E.g. "Error Detection" check box
- **The description in this manual assumes that this software has been installed in the default folder shown below.**
If you changed the folder, use that folder instead of the default folder.
C:\Program Files\SHARP\ (V Series) Display Installation Tool
- **The screens and operation procedures are typical examples.**
The contents or details may vary depending on the model of your LCD MONITOR, screen configuration, and OS version, etc. Examples in this manual are based in Windows 7.
- **This manual does not contain basic operating instructions for Windows.**

Preparation

Operating environment

Item		Description
Personal computer (PC)	OS	Microsoft Windows XP SP3 or later / Vista / 7 (English version)
	Hard disk	40 MB or more free space (Additional space required for saving data.)
	Interface	LAN port (TCP/IP communication must be functional.) or RS-232C serial port
Display		Full-color display with resolution of 1024 x 768 or better

Connection

Connect the LCD MONITOR to a PC with the RS-232 cable.

Or, connect the LCD MONITOR to a network with a LAN cable.

It is also possible to control an LCD MONITOR daisy-chain.

For connection details, refer to the operation manual of your LCD MONITOR.

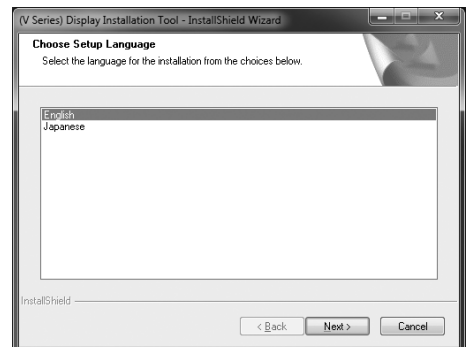
Up to 25 monitors can be connected with RS-232 cables, and up to 100 monitors can be connected with LAN cables.


TIPS

When connecting monitors in a daisy chain with the RS-232 cable or when connecting with LAN, set "STANDBY MODE" on the LCD MONITOR to "STANDARD".

Installing the software

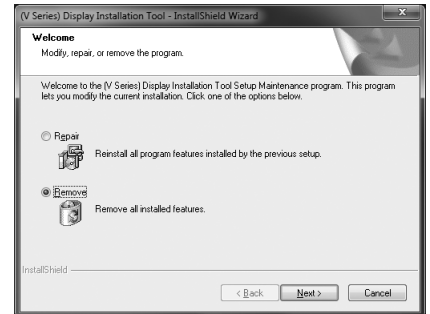
- Administrator authority is required to conduct the following operation.
1. **Start your PC.**
 2. **Close down all applications.**
 3. **Start the setup program (IDPInstToolSetup_V.exe).**
 - Double-click IDPInstToolSetup_V.exe and the setup program will start.
 - When a security warning saying 'The publisher could not be verified.' is displayed during installation, click [Yes].
 4. **Follow the instructions displayed on the screen to complete the operation.**



When the installation is complete, a shortcut icon of (V Series) Display Installation Tool () has been created on the desktop.

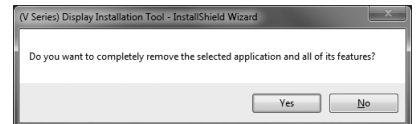
●Uninstalling the software

1. **Start your PC.**
2. **Close down all applications.**
3. **Start the setup program (IDPInstToolSetup_V.exe).**
 - Double-click IDPInstToolSetup_V.exe and the setup program will start.
 - When a security warning saying 'The publisher could not be verified.' is displayed during installation, click [Yes].
4. **Select the "Remove" radio button and click [Next >].**

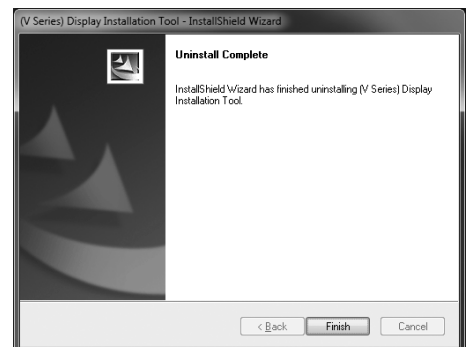


5. **Click [Yes].**
The uninstallation will start.

Follow the instructions displayed on the screen to complete the operation.



6. **Click [Finish].**
The uninstallation has finished.



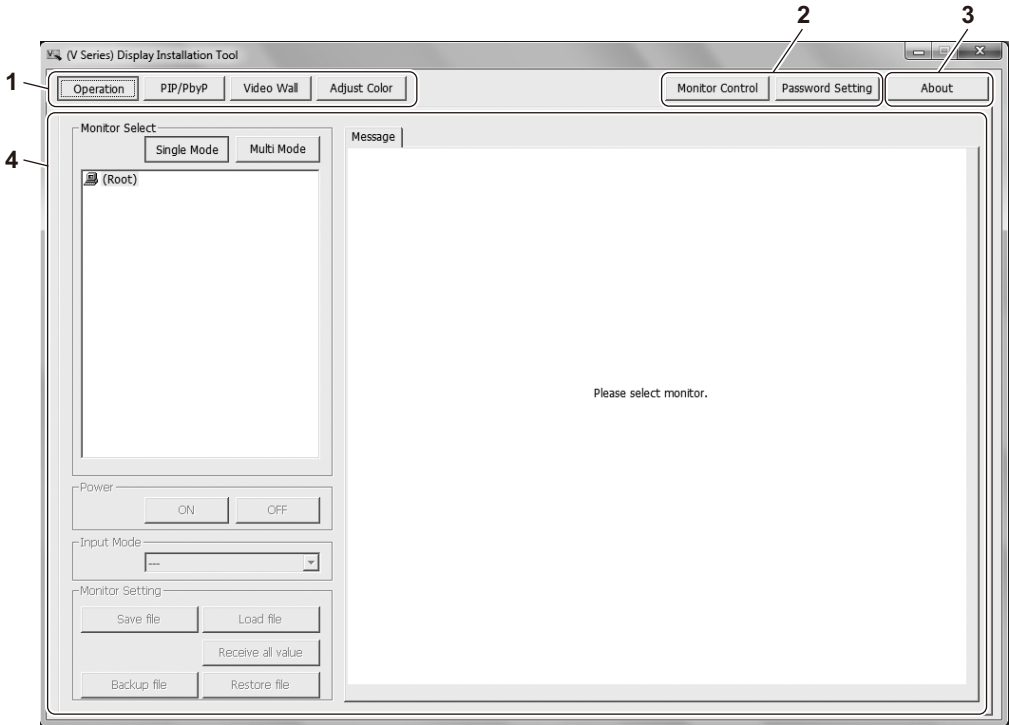
Starting and exiting the software

! Caution

Do not set POWER ON DELAY on the LCD MONITOR.
When POWER ON DELAY is set, errors may occur frequently and prevent proper operation.

• Starting the software

1. Double-click the shortcut icon of (V Series) Display Installation Tool (V) on the desktop.



1) Function buttons

Operation	Used to set all of the configurations of the LCD MONITOR.	Page 9
PIP/PbyP	Used to set the configuration of PIP/PbyP.	Page 11
Video Wall	Used to adjust settings for multiple-monitor configuration.	Page 13
Adjust Color	Used to display the built-in pattern in the LCD MONITOR in order to check and adjust the color and brightness of the monitor.	Page 16

2) Setting buttons

Monitor Control	Used to register/edit the individual LCD MONITOR or to register a group.	Page 6
Password Setting	Used to set the password and operating authority.	Page 18

3) About

Shows the version information and model name that the Display Installation Tool supports.

4) Main screen

Used to control the LCD MONITOR.
The displayed content will vary depending on the selected function button or the LCD MONITOR to be controlled.

TIPS

- You can also start the software by clicking the [Start] button in the Windows taskbar and then selecting [All Programs] - [Display Installation Tool] - [(V Series) Display Installation Tool].
- To control your LCD MONITOR, you need to select [Monitor Control] and register the LCD MONITOR to be controlled.

●Exiting the software

1. Click the  of the (V Series) Display Installation Tool.

Registering an LCD MONITOR to be controlled (Monitor Control)

To control your LCD MONITOR, you need to select [Monitor Control] and register (add) the LCD MONITOR to be controlled.

●Adding/editing an LCD MONITOR

1. Click [Monitor Control].
The [Monitor Control] dialog box is displayed.
2. To add a new LCD MONITOR to be controlled:
Click [Add Monitor].
To change the existing setting:
From the list, select the LCD MONITOR to change.

3. Set each item.

- 1) Interface

Select the connection method (RS-232C or LAN).

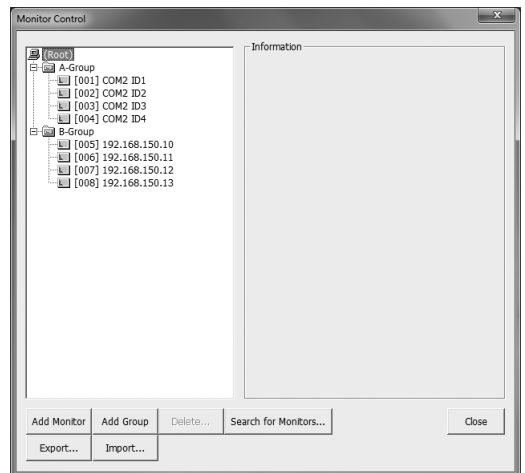
When RS-232C is selected:

Specify "COM Port", "ID No.", and "Baud Rate".

When LAN is selected:

Specify "IP Address", "ID No.", and "Data Port".

When a user name and a password are required to access the LCD MONITOR, click [Register Password...] and specify "User name" and "Password".



RS-232C	COM Port	Select the port to which the LCD MONITOR is connected.
	ID No.	Select the ID number specified in the LCD MONITOR.
	Baud Rate	Select the communication speed set in the LCD MONITOR. The default setting is "38400 bps".
LAN	IP Address	Enter the IP address of the LCD MONITOR.
	ID No.	Select the ID number specified in the LCD MONITOR.
	Data Port	Specify the TCP port number used for data communication.
	MAC Address	Click [Get Monitor's Information], and the MAC address of the LCD MONITOR is displayed.

2) Model Name/Serial No.

Select the model name.

By clicking [Get Monitor's Information] while the LCD MONITOR is connected, you can acquire the model name and serial number.

For some models, a checkbox may appear. Select as appropriate for your LCD MONITOR.

3) Use this monitor

Uncheck this box if you do not want to control the LCD MONITOR from this software.

4) Dummy Monitor

Check this box if you need to register an LCD MONITOR that does not actually exist.

4. Click [Close].

●Adding/editing a group

1. Click [Monitor Control].

The [Monitor Control] dialog box is displayed.

2. To add a group:

Click [Add Group].

To edit a group:

From the list, select a group to edit.

3. Enter "Group Name".

(Up to 256 characters)

4. Click [Close].

●Deleting the LCD MONITOR/group

! Caution

When you delete a group, all LCD MONITORS that belong to the group are deleted.

1. Click [Monitor Control].

The [Monitor Control] dialog box is displayed.

2. From the list, select the LCD MONITOR or group to be deleted.

3. Click [Delete...].

A confirmation message is displayed.

4. Click [OK].

5. Click [Close].

●Adding the LCD MONITOR automatically

The software automatically acquires the information and adds the monitor.

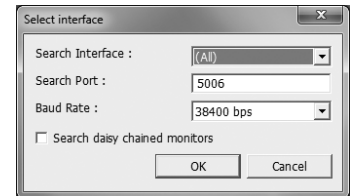
1. Click [Monitor Control].

The [Monitor Control] dialog box is displayed.

2. Click [Search for Monitors...].

3. Specify the interface used for the search for the LCD MONITOR.

- When “(All)” is selected, the software searches for all LCD MONITORs connected to COM ports or via LAN.
- When “(All)” or “LAN” are selected, set the port number to search at “Search Port.”.
- In “Baud Rate”, specify the communication speed that is set in the LCD MONITOR.
The default setting is “38400 bps”.
- If you want to obtain the information about daisy-chained LCD MONITORs, check the “Search daisy chained monitors” check box.



4. Click [OK].

5. Click [OK].

6. Click [OK].

7. Click [Close].

TIPS

- An LCD MONITOR that has been turned off may not be added.
- If you could not obtain information about daisy-chained LCD MONITORs, click [Search for Monitors...] again.
- If LAN settings are changed in the LCD MONITOR, turn the main power of the LCD MONITOR off and then on.
- If LCD MONITORs with different conditions such as daisy-chain capability or baud rate are mixed together, add the LCD MONITOR manually.

●Import/Export

Export: Output the information of registered LCD MONITOR to the file.

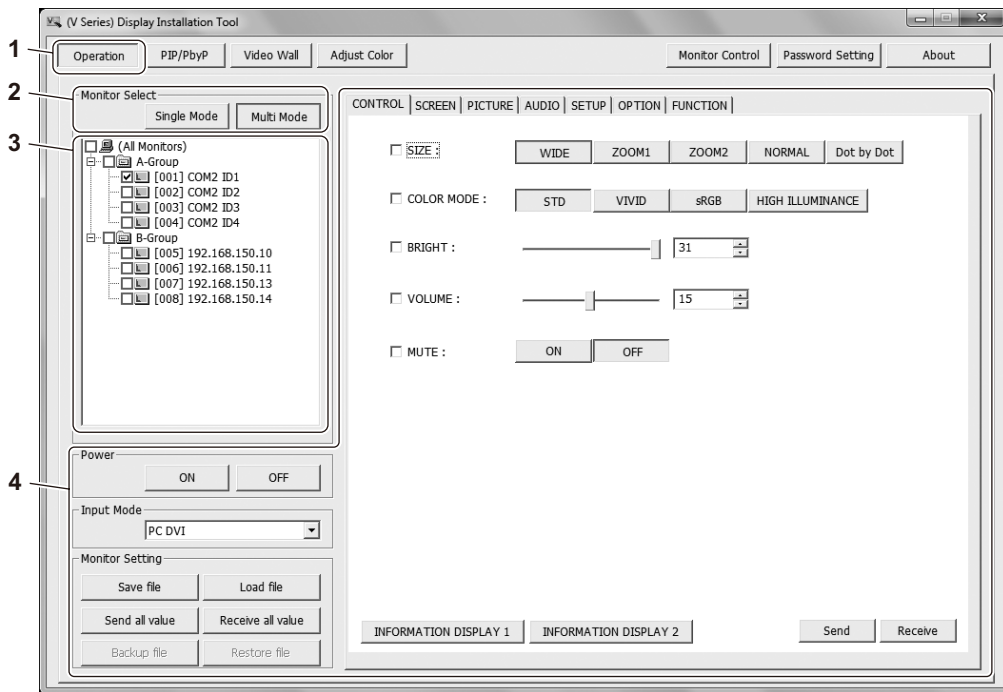
Import: Import the exported information of the LCD MONITOR.

TIPS

- A number added to the front of a monitor ID name, or a number added to the end of a Multi Group ID name or Enlarge Group ID name, will change when the information is imported.

Control

Operation



1. Click [Operation].
2. Select the option according to the number of LCD MONITORS to be controlled.
 - To control one monitor, click [Single Mode].
 - To control two or more monitors simultaneously, click [Multi Mode].
(If you select a different model, operation will be limited.)
3. Select the LCD MONITOR(s) to be controlled.
 - When [Single Mode] is selected, click the monitor icon (E.g. [001]).
 - When [Multi Mode] is selected, check the boxes next to the monitors or groups (E.g. [001]).
Uncheck the uncontrolled monitor.
4. Perform setup.
 - You can control Power or Input Mode of the LCD MONITOR and change the settings. For setting details, refer to the operation manual of your LCD MONITOR.
 - When [Single Mode] is selected, the software communicates with the LCD MONITOR and changes the monitor settings every time you change a setting here.
 - When [Multi Mode] is selected, select the checkboxes after changing the settings, and then click [Send]. After clicking, the software communicates with the LCD MONITORS and changes the monitor settings.

Monitor Setting

Button name	Description
Save file	Saves the monitor settings in a file. Saves the monitor settings by input mode. Change to the desired input mode and then click this button to save the settings of that mode.
Load file	Loads the settings saved in a file to this software. When [Single Mode] is selected, the loaded settings are applied to the LCD MONITOR.
Send all value	Changes the monitor settings to the settings specified with this software.
Receive all value	Reads the settings of the selected LCD MONITOR and replaces the settings in this software with the read settings.
Backup file	Backs up the monitor settings to your PC. Operate in [Single Mode]. Saves the monitor settings (all settings or "PICTURE" settings) of all input modes. PN-V601 does not support this feature or function.
Restore file	Restores backed up monitor settings. Operate in [Single Mode]. After the settings are restored, the LCD MONITOR will restart. PN-V601 does not support this feature or function.

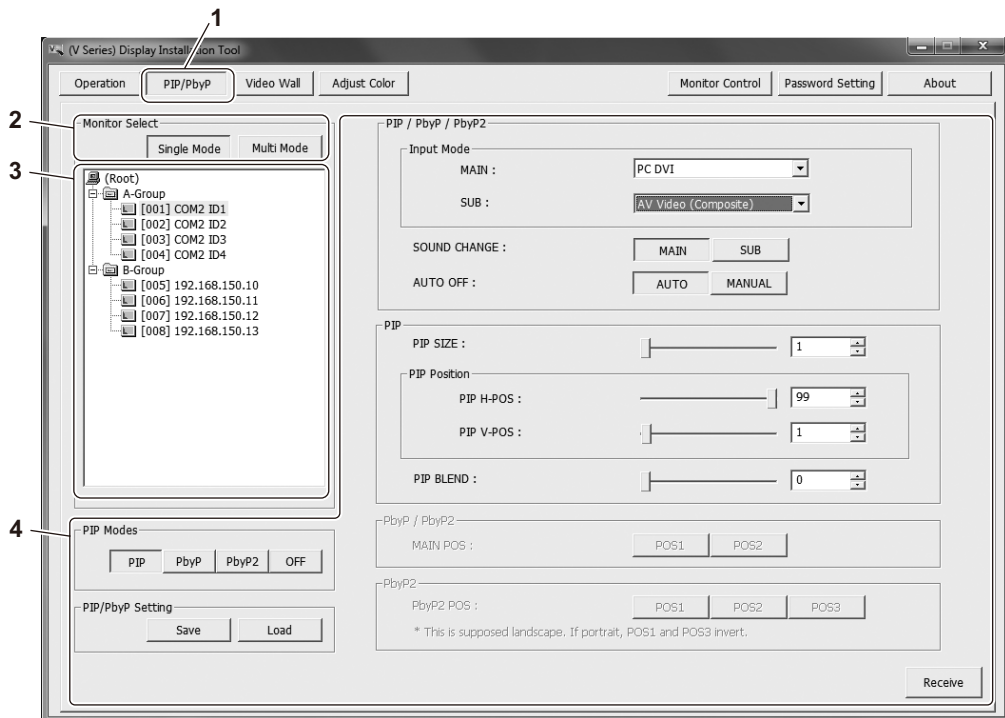
[Receive]

Click this button to read the settings of the selected LCD MONITOR shown on the screen and replace the settings in this software with the read settings.

TIPS

- Some options may not be set depending on the Input Mode.
- [PICTURE VALUE COPY] can be clicked on the PICTURE tab to copy the current picture adjustment values to a specified input mode.
- The values that are copied by [PICTURE VALUE COPY] vary depending on the input mode.
- Some values such as color management values are not copied by [PICTURE VALUE COPY].

PIP/PbyP



1. Click [PIP/PbyP].
2. Select the option according to the number of LCD MONITORs to be controlled.
 - To control one monitor, click [Single Mode].
 - To control two or more monitors simultaneously, click [Multi Mode].
3. Select the LCD MONITOR(s) to be controlled.
 - When [Single Mode] is selected, click the monitor icon (E.g. [001]).
 - When [Multi Mode] is selected, check the boxes next to the monitors or groups (E.g. ☐ [001]). Uncheck the uncontrolled monitor.
 - You cannot select grayed-out monitors (because they may not support PIP/PbyP).
4. Select the PIP mode.

The setting options available for the selected PIP mode are displayed on the right side of the screen.
5. Change the settings.
 - For setting details, refer to the operation manual of your LCD MONITOR.
 - When [Single Mode] is selected, the software communicates with the LCD MONITOR and changes the monitor settings every time you change a setting here.
 - When [Multi Mode] is selected, you need to click [Send] after you change the settings. After clicking, the software communicates with the LCD MONITORs and changes the monitor settings.

PIP/PbyP Setting

Button name	Description
Save	Saves the monitor settings in a file.
Load	Loads the settings saved in a file to this software. When [Single Mode] is selected, the loaded settings are applied to the LCD MONITOR.

[Receive]

Click this button to read the settings of the selected LCD MONITOR and replace the settings in this software with the read settings.

TIPS

When you change the INPUT MODE using this software, the PIP/PbyP setting is reset and the screen returns to the single screen mode.

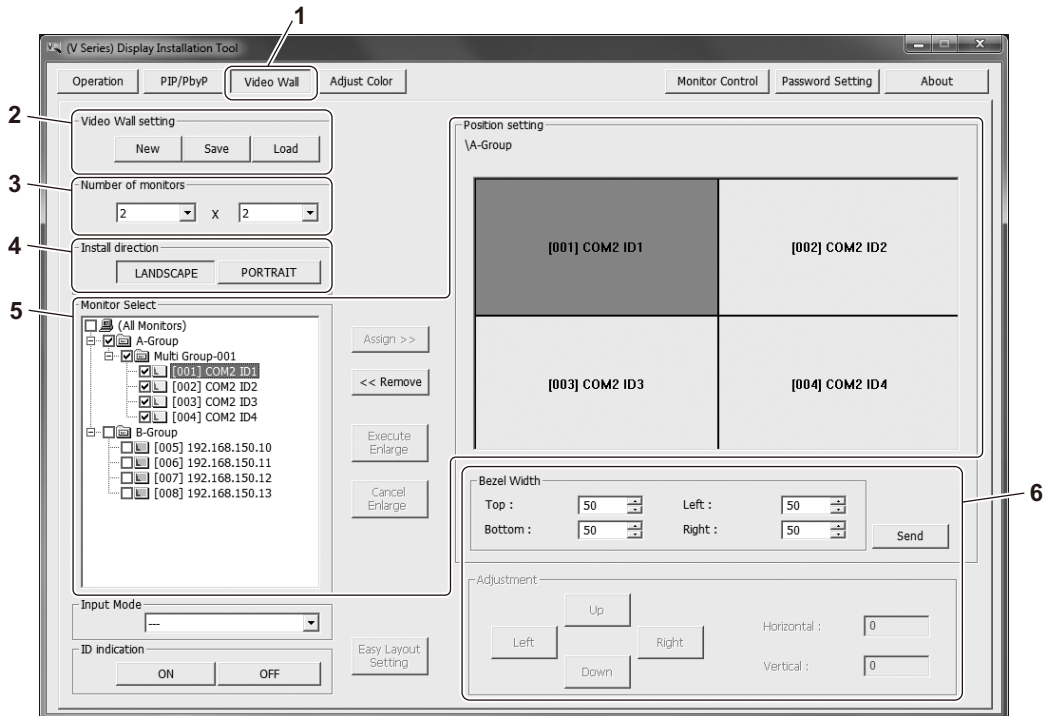
Video Wall

TIPS

- Video Wall settings cannot be set simultaneously with PIP/PbyP.
- When a video signal is not input, Multi/Enlarge cannot be set.

•Setting the Video Wall

To use “Easy Layout Setting”, see page 14.



1. Click [Video Wall].
2. Click [New].
3. Select the number of monitors.
4. Select the install direction.
5. Specify the position of the LCD MONITORS.
 - 1) Select the monitor from the Monitor Select list.
 - 2) Click on the position of the monitor in the Position setting area.
 - 3) Click [Assign >>].
 - You can also set the position of the monitor by dragging-and-dropping from the Monitor Select list to the desired position in the Position setting area.
 - To cancel the assignment, click the monitor in the Position setting area and click [<< Remove].
6. Click [Send].
 The Video Wall settings are complete.
 Normally, Video Wall can be used even if “Bezel Width” and “Adjustment” are not set.

TIPS

- When the ID indication area is clicked [ON], the number of the monitor name (three digits) will be displayed in each LCD MONITOR. Use this to check the Video Wall layout. (The monitor name is automatically assigned when adding an LCD MONITOR in Monitor Control.)
- After setting Video Wall, current information can be saved by clicking [Save].
- [Load] allows you to load previously saved settings and change monitor configuration.
- The monitors with completed Video Wall settings are registered to a group (Multi Group).
- When performing fine adjustments of the bezel width, after selecting the LCD MONITOR, adjust the bezel width in “Bezel Width” and click [Send].

●Setting Video Wall (Easy Layout Setting)

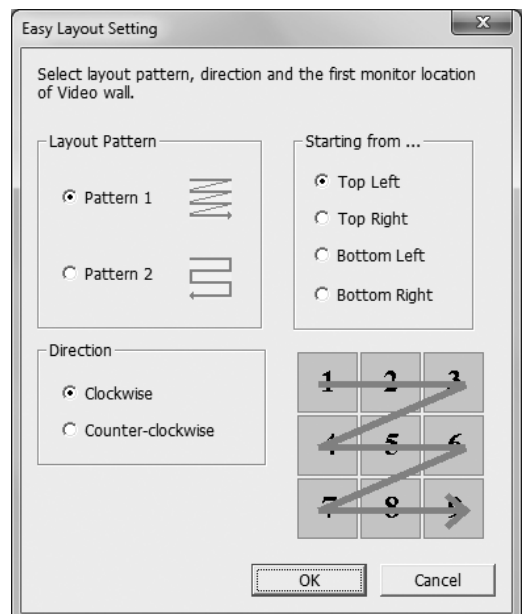
This positions the LCD MONITORS in the order of the 3-digit numbers in the monitor names.

!Caution

- If any of the monitors for which Easy Layout Setting will be performed already have a layout setting, the layout setting of those monitors will be deleted and replaced with the new setting.
- Register an LCD MONITOR to be set in Video Wall in the same group in advance. If all registered monitors are set, group registration is not necessary.

1. Using the steps 1-4 listed on page 13, select the number of monitors and the install direction.
2. Select the group or “(All Monitors)” from the Monitor Select field.
3. Click [Easy Layout Setting].
4. Set the layout pattern, direction, and starting position, and click [OK].

The monitors are positioned in the position setting field.



5. Check the position settings.

6. Click [Send].

The Video Wall setting is complete.

Normally there is no need to set the Bezel Width and Adjustment.

TIPS

- When the ID indication area is clicked [ON], the number of the monitor name (three digits) will be displayed in each LCD MONITOR. Use this to check the Video Wall layout. (The monitor name is automatically assigned when adding an LCD MONITOR in Monitor Account.)
- Easy Layout Setting cannot be used for a monitor that is registered in multiple groups.
- When the number of monitors registered in a group is greater than the number of Video Wall monitors, some monitors in the group will not be positioned.
- When the number of monitors registered in a group is less than the number of Video Wall monitors, Easy Layout Setting cannot be used. (Easy Layout Setting can be used if dummy monitors are registered in Monitor Control for the lacking monitors.)

●Setting Enlarge

1. **Using the steps 1-6 listed on page 13, set the Video Wall.**
2. **Select the range of monitors where enlargement will take place.**
Drag to select the range of monitors where enlargement will take place in the Position setting area.
3. **Click [Execute Enlarge].**
4. **Click [Send].**
The Enlarge setting is complete.
Normally there is no need to set the Bezel Width and Adjustment.

TIPS

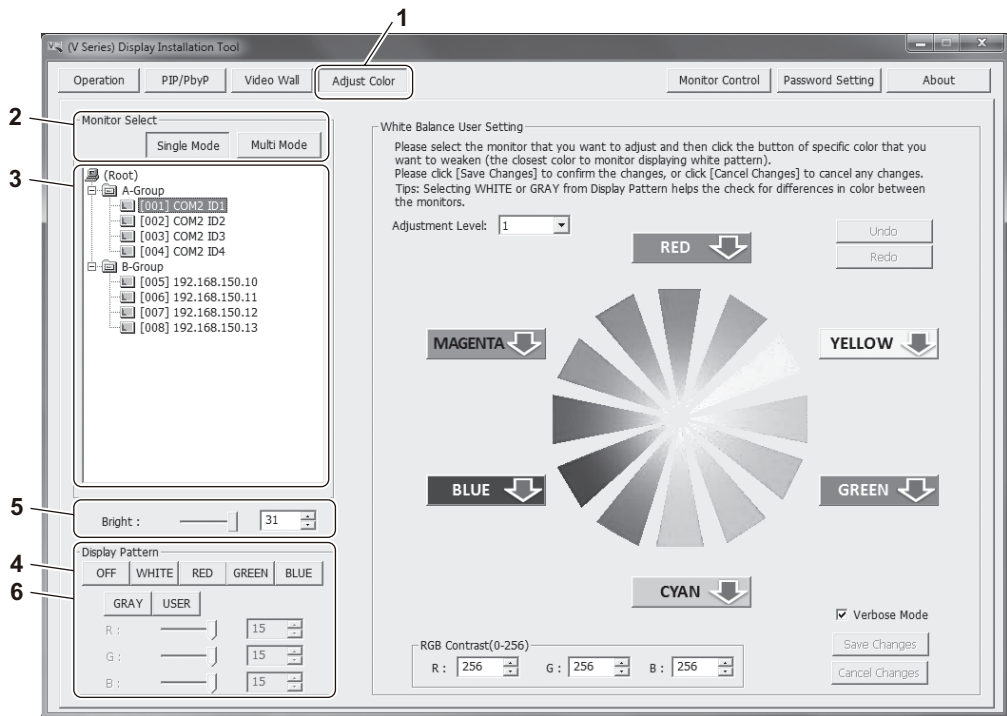
- To cancel Enlarge, click the monitor in the Position setting area and click [Cancel Enlarge].
- The monitors with completed Enlarge settings are registered to a group (Enlarge Group-xxx).
- When performing fine adjustments of the display position, after selecting the LCD MONITOR, click the [Up], [Down], [Left] and [Right] buttons in "Adjustment" to adjust.

! Caution

- A display that belongs to a group is a sub-display of that group.
- One Multi Group can be assigned to one group.
- An Enlarge setting cannot be configured for different Multi Groups.
To set multiple Video Walls, create multiple groups in Monitor Control and set a Video Wall for each group.
- The position of a display that belongs to a Multi Group or Enlarge Group cannot be changed until the group setting is cancelled.
- If the number of monitors or the install direction setting is changed, the Video Wall settings and Enlarge setting of the group to which the selected monitors belong will be canceled.

Adjust Color

The built-in pattern in the LCD MONITOR can be displayed to adjust the color and brightness of the monitor.



● Adjust the brightness

1. Click [Adjust Color].

- A dialog box may appear to confirm changing of the WHITE BALANCE setting.

To adjust the color, the WHITE BALANCE setting of the LCD MONITOR must be changed to "USER". Click [OK].

If you only change the brightness, there is no need to change the WHITE BALANCE setting. Click [Cancel].

2. Click [Single Mode] or [Multi Mode].

- To display a pattern on one monitor only, click [Single Mode].
- To display a pattern on multiple monitors, click [Multi Mode].

3. Select the LCD MONITORS on which a color pattern will be displayed.

- In [Single Mode], click the monitor on which a pattern will be displayed (example: [001]).
- In [Multi Mode], click the monitors or group (example: [001]) on which a pattern will be displayed. Remove checkmarks from monitors on which a pattern will not be displayed.

4. Select the desired pattern color from the Display Pattern field.

- Click [WHITE], [RED], [GREEN], or [BLUE]. The pattern of the selected color is displayed.
- [GRAY] can be selected to display 16 gradations of gray.
When the R/G/B value is enabled, an R/G/B value of "0" displays black, a value of "15" displays white, and a value of "1" to "14" displays gray.
- [USER] can be clicked to select from 4096 colors.
Specify one of 16 gradations for each R, G, and B value. Specifying "0" for all R, G, and B values results in black. Specifying "15" results in white.

5. Change the brightness setting.

- Each time the setting is changed, communication with the monitor takes place and the monitor setting changes.

6. When adjustment is completed, click [OFF] in the Display Pattern field.**! Caution**

- When displaying the pattern, the screen may flicker or time may be required for the pattern to appear.
- While the pattern appears, it is not possible to change to another screen. Set Display Pattern to [OFF] on all monitors.
- Do not perform any operations with the remote control or otherwise while the pattern is displayed. This may distort the pattern.

●Adjust the color


The color is adjusted while viewing the white pattern.

You can change the user settings for the WHITE BALANCE of the LCD MONITOR.

1. Follow steps 1 to 4 on page 16 to display the white pattern.

- Click [WHITE] in the Display Pattern field.
- Set the brightness if needed.

2. Click [Single Mode]**3. Select the LCD MONITOR for which you want to adjust the color.**

- Click the monitor for which you want to adjust the color (example:  [001]).

4. Adjust the color.

- Click the button of the color (the color that you want to weaken) that is closest to the monitor color.
E.g. If the color is yellowish, click [YELLOW].
- To undo an operation, click [Undo].
- To redo an operation that you undid with [Undo], click [Redo].
- When the adjustment level is increased, one operation results in greater change.

5. When you have finished adjustment, click [Save Changes].

- Once [Save Changes] is clicked, [Undo] and [Redo] cannot be used.
- To cancel your changes, click [Cancel Changes].

6. Click [OFF] in the Display Pattern field.

Appendix

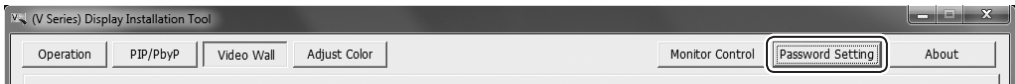
Password Setting

You can set passwords to restrict operations for each user level.
This prevents settings from being changed accidentally.

! Caution

- Be careful not to forget the specified password.

1. Click [Password Setting].

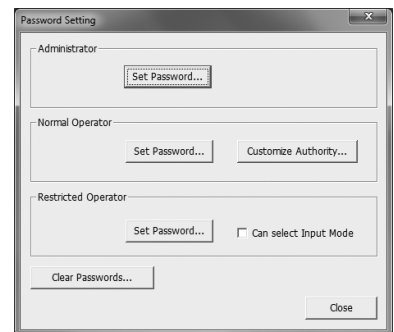


The [Password Setting] dialog box is displayed.

2. Specify passwords for each user ("Administrator", "Normal Operator", and "Restricted Operator").

1) Click [Set Password...].

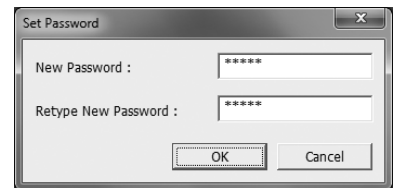
The [Set Password] dialog box is displayed.



2) Enter a password in the "New Password" field, and enter the same password in the "Retype New Password" field.

3) Click [OK].

The password is set.



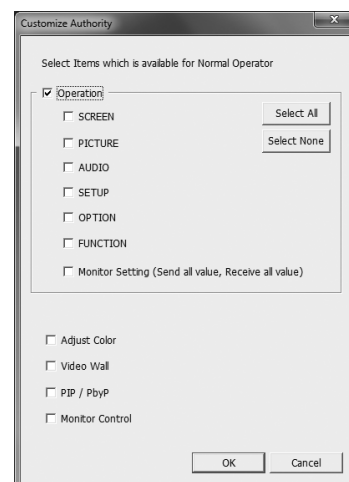
4) Click [Close].

3. Click the [X] to exit this software.

From the next startup, you need to select a user and enter its password. (See Page 19.)

TIPS

- You can change the operation restrictions for the Normal Operator.
 - In the [Password Setting] dialog box, click [Customize Authority...] in the “Normal Operator” section.
 - Check the item for which the operation is allowed to the operator.
 - Click [OK].



- The “Restricted Operator” is allowed to turn on/off the monitor only. However, if the “Can select Input Mode” is checked in the [Password Setting] dialog box, the restricted operator can also operate the input mode.
- When [Clear Passwords...] is clicked in the [Password Setting] dialog box, the passwords of all users are cleared.

•Start the software set with a password

- Double-click the shortcut icon of (V Series) Display Installation Tool (V) on the desktop.
- Authenticate the user.
 - Select “Authority”.
 - Enter the password.
 - Click [OK].

The software starts.

The software may be shown in the small window shown below depending on the specified operation restrictions.

