USER MANUAL

LG LED Assistant

v 2.1.89

http://partner.lge.com

ENGLISH

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LG LED ASSISTANT

LG LED Assistant is the easiest and most convenient software to set up LG LED Signage. It provides features to set the LED layout, dashboard and device management, device control and software settings.

System Requirements

Please check the system requirements for proper performance.

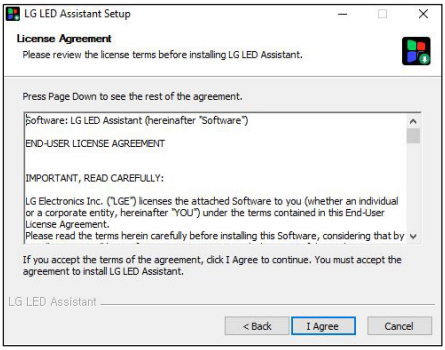
Item	Details
Operating System	Windows 7/10 (64 bit)
Memory	2GB (DDR 3) or higher
CPU (Central Processing Unit)	2.40 GHz, 4-core or higher
Network	100 Mbps or higher
Resolution	1440 x 900 or higher * It is recommended to set the size of text, app and other items to 100%.
Browser	Chrome 70 or later

HOW TO INSTALL AND DELETE LG LED ASSISTANT

How to Install

1 Double-click the installation file.
- LG LED Assistant_SETUP_vx.x.x.exe

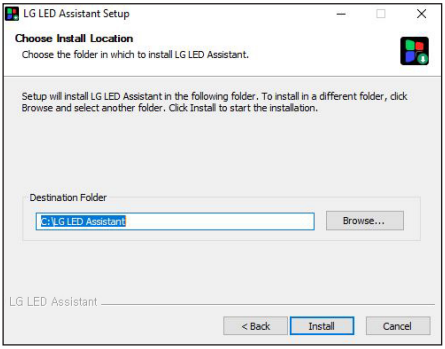
2 Check the license agreement, and click the [I Agree] button.



NOTE

- For PCs with an older version of LED Assistant installed, select the update type and go to the License Agreement screen.
  - Update: Keeps the existing settings and data.
  - Reinstallation: Does not keep the existing settings and data.

3 Select a folder to install LG LED Assistant, and click the [Install] button.



4 When the installation of LG LED Assistant is completed, click the [Finish] button.

How to Delete

1 Click the [Uninstall LG LED Assistant] icon in the LG LED Assistant installation folder or in [Start] > [All Programs] > [LG LED Assistant].

2 Click the [Uninstall] button to proceed with the deletion.

3 Click the [Finish] button to finish the deletion.

LOGIN AND SIGN OUT

Execute

1 Click the [LG LED Assistant] icon in LG LED Assistant Installation folder or [Start] > [All Programs] > [LG LED Assistant]. Or enter *https://Server IP Address:8787* in the Chrome browser.

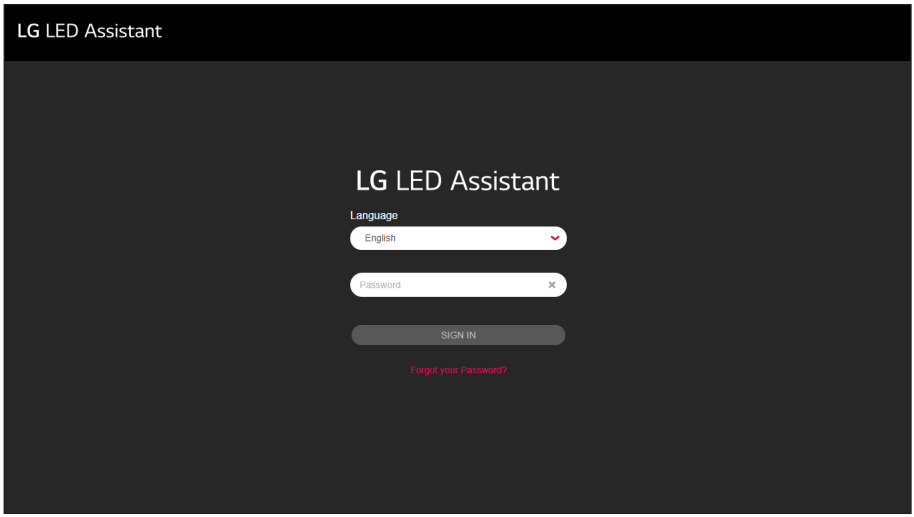
NOTE

- When you access in the Chrome browser, the LED Layout Setting feature is disabled.

Login

1 Double-click the LG LED Assistant icon to run the program.

2 Enter the password, and click the [SIGN IN] button.



NOTE

- The default password is "000000".
- The default language is set as the system language, and after you log in, the default language will be changed into a language that you select.
- When you access in the Chrome browser, the password reset feature is disabled.

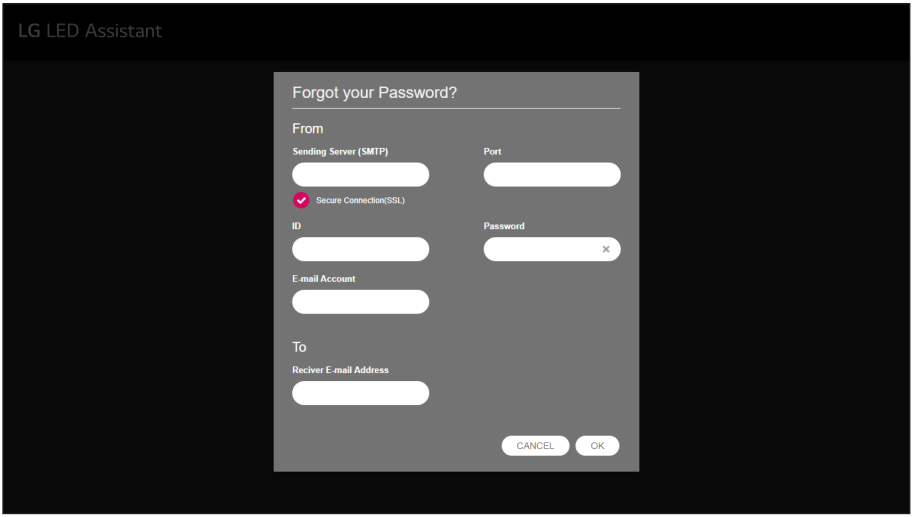
Forgot Your Password?

You can initialize the password via the Simple Mail Transfer Protocol (SMTP) server.

1 Click the [Forgot your Password?] button on the Login screen.

2 Enter the e-mail account settings, and click the [OK] button.

- The initialized password will be sent to the entered e-mail account.



NOTE

- The SMTP server specifications comply with the relevant SMTP server standard.

Sign out

1 Click the Sign out icon ( ) on an upper right side of the program.

LED LAYOUT SETTING

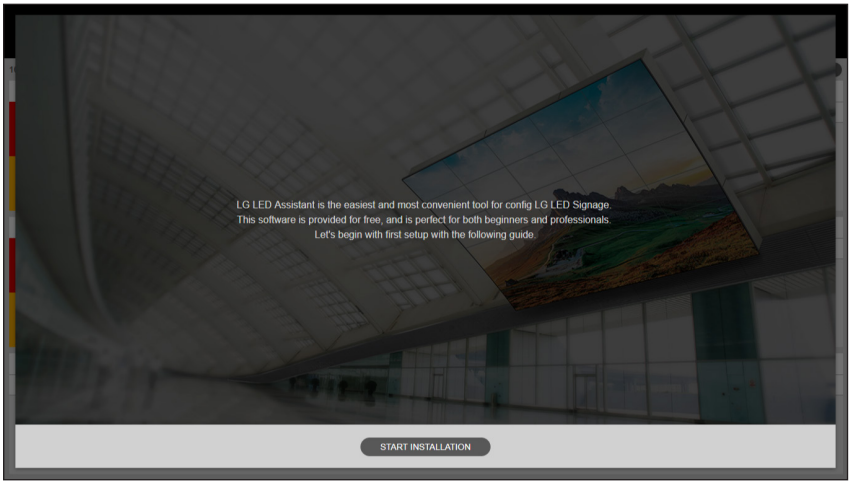
The LED Signage Layout Setting is a process to synchronize the installation information of LG LED Assistant and LG LED Signage installed. When the setting in this step is completed, you can conduct the management and device control of LG LED Signage.

Depending on the model name of the connected device, perform the following steps to set up the LED layout.

Model name	LCLG003 / LCLG005	All-in-One(LAxx) / Residential(MSAx) / LSAx	LCLG006 / CVxx / CBBx / CBCx	CSAx / CBAx / CPAx
Installation steps	1. Select System Controller 2. Overall Layout Configuration 3. LED Controller Daisy Chain Settings 4. LED Module Configuration 5. Configuration Overview	1. Select System Controller 2. Configuration Overview	1. Select System Controller 2. Receiver Card Resolution 3. Layout Configuration 4. Configuration Overview	1. Layout Configuration 2. Configuration Summary

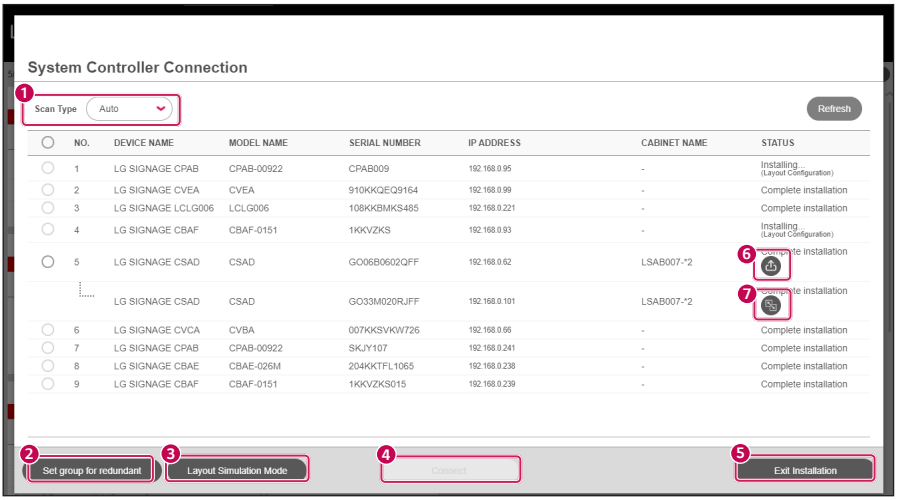
Entry into Layout Setting Screen

- When there is no LG LED Signage installed, click the [START INSTALLATION] button on a lower side of the program introduction screen.
- When there is an LG LED Signage installed, click the Installation icon ( ) on an upper right side of the program.



System Controller Connection

1 Select a system controller to set an LED layout, and click on the [CONNECT] button.
Devices with the same installation steps support simultaneous installation.



NOTE

No.	Item	Description
1	**Device connection**	The LG LED Assistant and the device can be connected through the device scan or Control Manager, or through the device's OSD menu screen. - Device Search: [Scan Type] > [Manual] > enter the device's IP > [Scan] - Control Manager: https://(device's ip):3737 > LED Assistant - Device OSD: [EZ Setting] > [Server Setting] > Control Server
2	**[SET GROUP FOR REDUNDANT]**	Sets the system controller redundancy. Thereby you can secure continuity of the service operation when there is a problem with the LG LED Signage or any other device.
3	**[LAYOUT SIMULATION MODE]**	Sets layout, regardless of device connection status. However, the function may or may not be supported, depending on the model.
4	**[CONNECT]**	Sets the layout of the connected device.
5	**[EXIT INSTALLATION]**	Exits the layout setting pop-up.
6	**[Export]**	Saves the layout information of the device on which the layout setting has been completed in a file. However, the function may or may not be supported, depending on the model.
7	**[Configuration data cloning]**	When it is set as a redundancy group, you can copy the layout information of the master device on which its layout setting has been completed to the slave device.

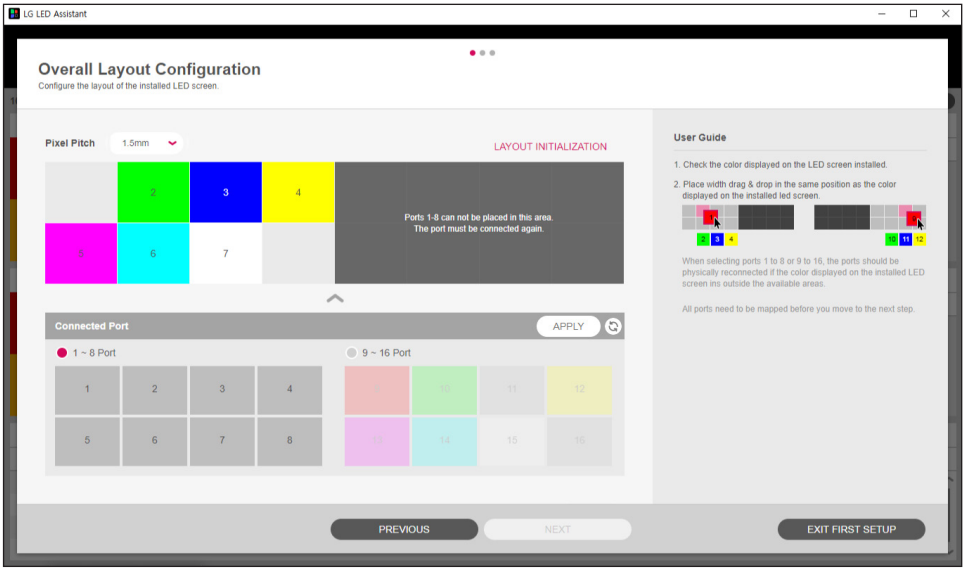
Overall Layout Configuration

This is a step where you set the installation information (port connection) between the system controller and the LED controller.

1 Select [Pixel Pitch].

2 Set the port layout of the installed system controller, and click the [NEXT] button.

- [LAYOUT INITIALIZATION]: Initializes the whole setting information.
- (Refresh): Refreshes the port layout setting screen.
- [APPLY]: Applies the port layout setting to the system controller, and ensure that the installation is done according to the setting by the user.



NOTE

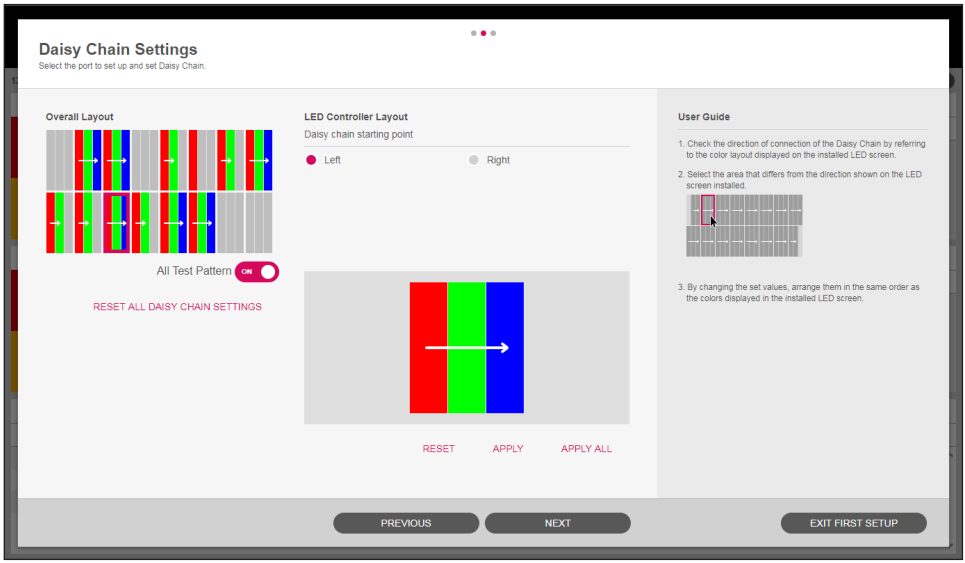
- If Pixel Pitch is not set up, layout setting features will be restricted.

LED Controller Daisy Chain Settings

This step is where you set the daisy chain connection direction of each LED controller.

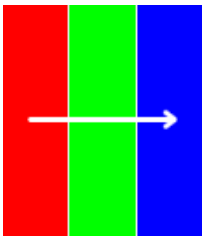
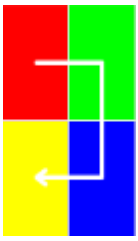
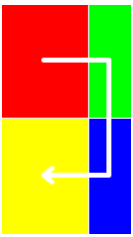
1 Set the daisy chain of the installed LED controller, and click the [NEXT] button.

- [RESET ALL DAISY CHAIN SETTINGS]: Initializes the daisy chain setting information set for all ports.
- [APPLY ALL]: Applies the set daisy chain setting information to all ports, and checks if the installation is done according to the setting by the user.
- [RESET]: Initializes the daisy chain setting information set for a selected port.
- [APPLY]: Applies the set daisy chain setting information to a selected port, and checks if the installation is done according to the setting by the user.



NOTE

- Depending on the pixel pitch that is set, the daisy chain setting configurations are different.

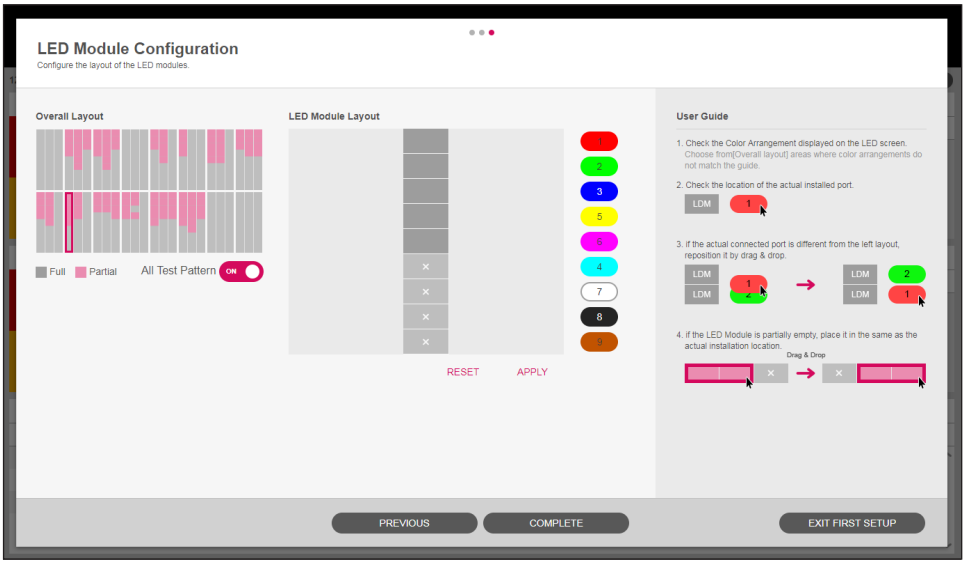
1.5 Pixel Pitch	2.0 Pixel Pitch	2.5 Pixel Pitch
		

LED Module Port Layout and Location Setting

This is a step where you set the installation information (port connection) between the LED controller and the LED modules and the location of each LED module.

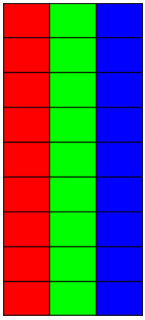
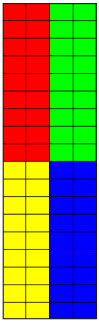
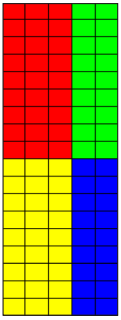
1 Set the port layout and location of the LED module installed, and click the [COMPLETE] button.

- [RESET]: Initializes the setting information about the LED connected to the selected LED controller.
- [APPLY]: Applies the port layout setting to the system controller, and ensure that the installation is done according to the setting by the user.



NOTE

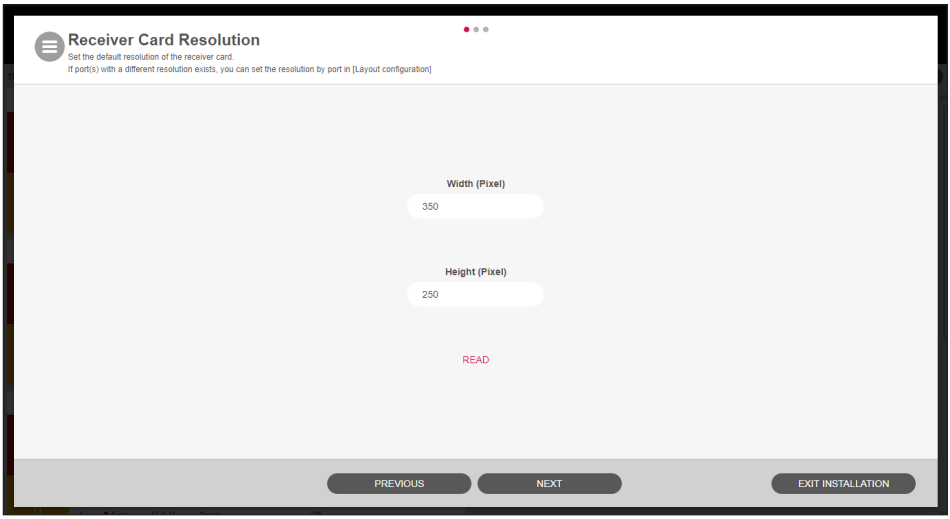
- Depending on the pixel pitch that is set, the port and position setting configurations are different.

1.5 Pixel Pitch	2.0 Pixel Pitch	2.5 Pixel Pitch
		

Receiver Card Resolution

This is the step to set the representative resolution of the receiver card. For ports with different resolutions, set the resolution for each port in [Layout Configuration].

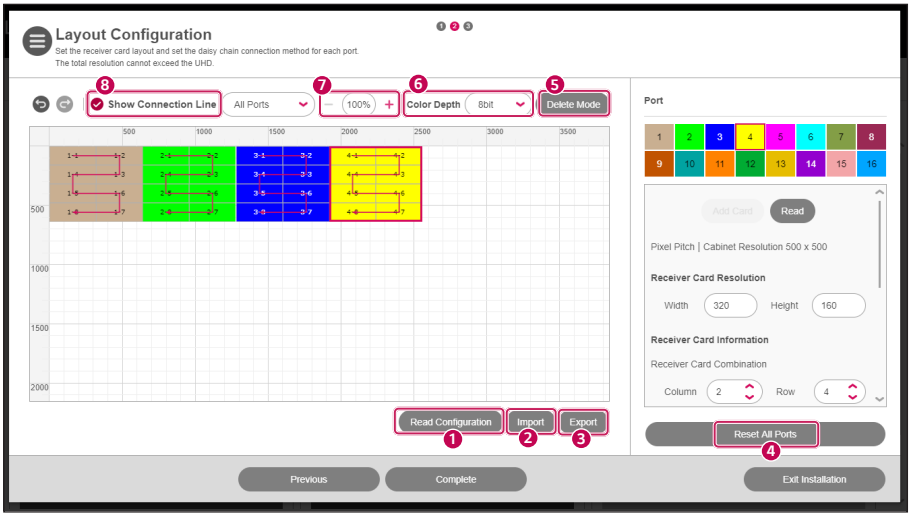
- [Read]: Shows the resolution of the receiver card stored in the device.



Layout Configuration (LCLG006 / CVxx / CBBx / CBCx)

This is the step to set the layout of the receiver card and set the method of connecting daisy chain for each port.

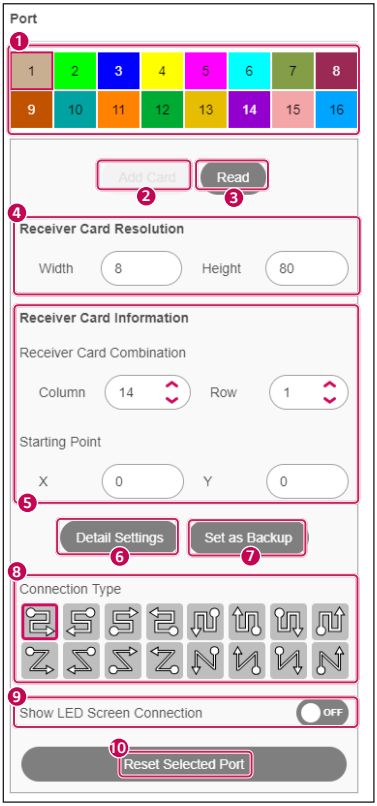
1 Layout Common Function



No.	Item	Description
1	**[READ]**	Shows the layout configuration saved in the device on the edit screen.
2	**[IMPORT]**	Shows the layout configuration information file exported to the PC on the edit screen.
3	**[EXPORT]**	Exports the current layout configuration information as a file to your PC.
4	**[RESET ALL PORTS]**	Resets all the configuration information on the edit screen.
5	**[DELETE MODE]**	Deletes the receiver card area on the edit screen. When you move the mouse in the edit area, the mouse cursor changes and the Delete icon appears when you click the receiver card.
6	**[Color Depth]**	This function is supported for CVxx devices, changing color expression according to the setting. - 8 bit: 256 steps - 10 bit: 1024 steps

7	**Zoom in/out**	Enlarges or reduces the editing screen size using the selected scale. Depending on the values set during the receiver card resolution setting stage, the provided zoom in/out ratios are as follows: - Default: 100 - 200 % - 50 pixels or less: 100 - 1600 %
8	**[Show Connection Line]**	Selects whether to display the daisy chain information of the receiver card on the edit screen. Daisy Chain connection information can be viewed by selecting all ports or a specific port.

2 Functions by port



No.	Item	Description
1	**Port connection information**	Displays the actual port connection status. Port information can be checked and modified by selecting the port with a click of the mouse.
2	**[Add Card]**	Adds the receiver card to the edit area. When you move the mouse to the edit area, the mouse cursor changes to the Add Card icon, and the receiver card will be added when clicking the mouse in the edit area.
3	**[Read]**	Shows the layout configuration of the selected port, which is stored on the device, on the edit screen.
4	**[Receiver Card Resolution]**	The values you entered in the receiver card resolution step are displayed as default values, and you can change the resolution value for each port.

5	**[Receiver Card Information]**	Shows the receiver card configuration information.
6	**[Detail Settings]**	You can check the coordinate values of the receiver card and change the coordinate values of each receiver card.
7	**[Set as Backup]**	Port redundancy can be set.
8	**[Connection Type]**	Sets the connection type of the receiver card.
9	**[Show LED Screen Connection]**	Check the connection order of the receiver card through the LED screen.
10	**[Reset Selected Port]**	Resets the setting information of the selected port on the edit area.

NOTE

- Custom connection directions can be set by clicking on the receiver card in the editing area and using the Add/ Remove Card buttons.
- For CVBx models with a layout configuration of 1280 x 720 or higher, you can choose whether to display OSDS Select screen.

Layout Configuration (CSAx / CBAx / CPAx)

1. Daisy Chain Unsupported Models

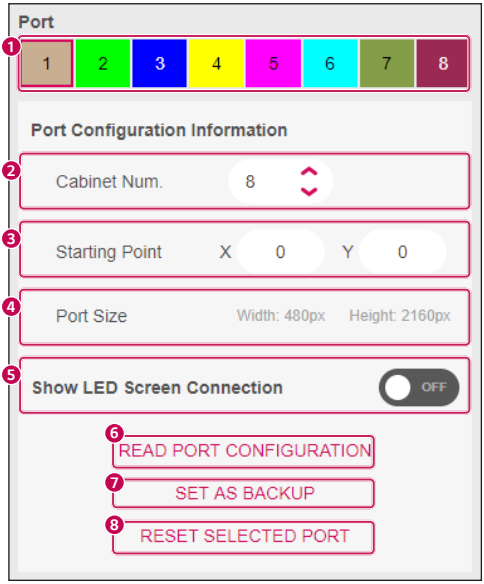
1-1 Layout Common Function

No.	Item	Description
1	**[Show ID]**	You can check the ID of each cabinet.
2	**[Pixel Pitch]**	You can choose the LDM pixels. However, the function may or may not be supported, depending on the model.
3	**[READ]**	Shows the layout configuration stored in the device on the edit screen.
4	**[IMPORT]**	Shows the layout configuration information file exported to the PC on the edit screen.
5	**[EXPORT]**	Exports the current layout configuration information in a file to the PC.
6	**[RESET ALL PORTS]**	Resets the entire configuration information of the edit screen.
7	**Zoom in/out**	Enlarges or reduces the editing screen size using the selected scale.

NOTE

- For the integrated controller, cabinet model information and the [Change] feature is provided.

1-2 Functions by port



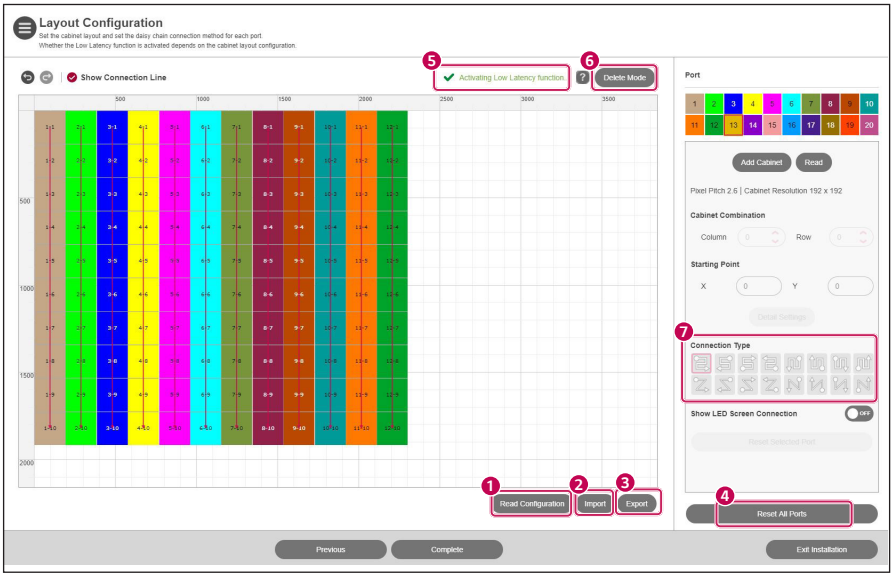
No.	Item	Description
1	**Port connection information**	This shows if there is an actual port connection. You can change the properties of the connected port.
2	**[Cabinet Num.]**	Shows the number of cabinets of the selected port. You can edit the number. If no cabinet is added, the [Add cabinet] button will be displayed.
3	**[Starting Point]**	Shows the starting coordinates of the layout area of the selected port.
4	**[Port Size]**	Shows the size of the layout area of the selected port.
5	**[Show LED Screen Connection]**	You can check the order of the cabinet connection through the LED screen.
6	**[READ PORT CONFIGURATION]**	Shows the layout configuration of the selected port stored in the device on the edit screen.
7	**[SET AS BACKUP]**	You can select the redundancy port of the selected port.
8	**[RESET SELECTED PORT]**	You can reset the layout configuration information of the selected port.

NOTE

- If the layout configuration is 1280 x 720 or higher, you can select whether or not to display the OSD Select screen.
- The support status of the “Expand/Reduce Screen” function differs depending on the model.

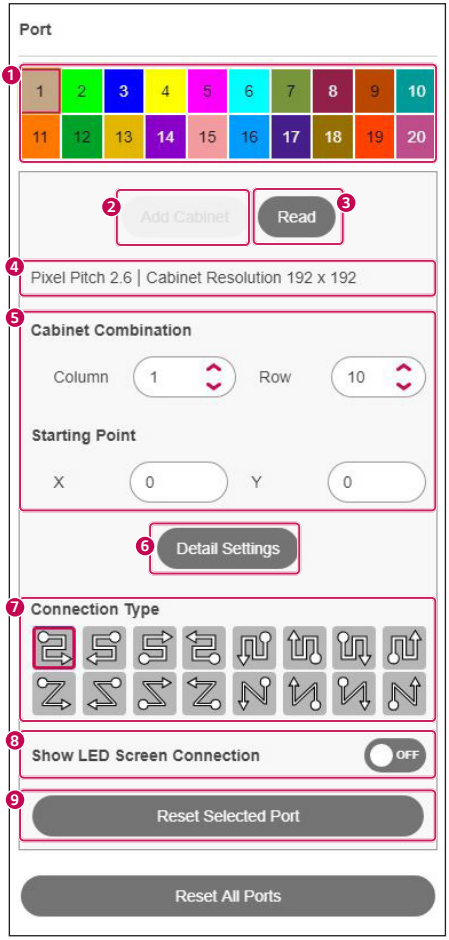
2. Daisy Chain Supported Models

1-1 Layout Common Function



No.	Item	Description
1	**[Read Configuration]**	Shows the layout configuration saved in the device on the edit screen.
2	**[Import]**	Shows the layout configuration information file exported to the PC on the edit screen.
3	**[Export]**	Exports the current layout configuration information as a file to your PC.
4	**[Reset All Ports]**	Resets all the configuration information on the edit screen.
5	**Low Latency Message Area**	Shows the presence or absence of layouts with a low latency option.
6	**[Delete Mode]**	Deletes the cabinet area on the edit screen. When moving the mouse cursor in the edit area The mouse cursor changes, and the delete icon is displayed when clicking on the cabinet.
7	**[Connection Type]**	Selects whether or not to display the daisy chain information of the cabinet on the edit screen.

1-2 Port Specific Functions



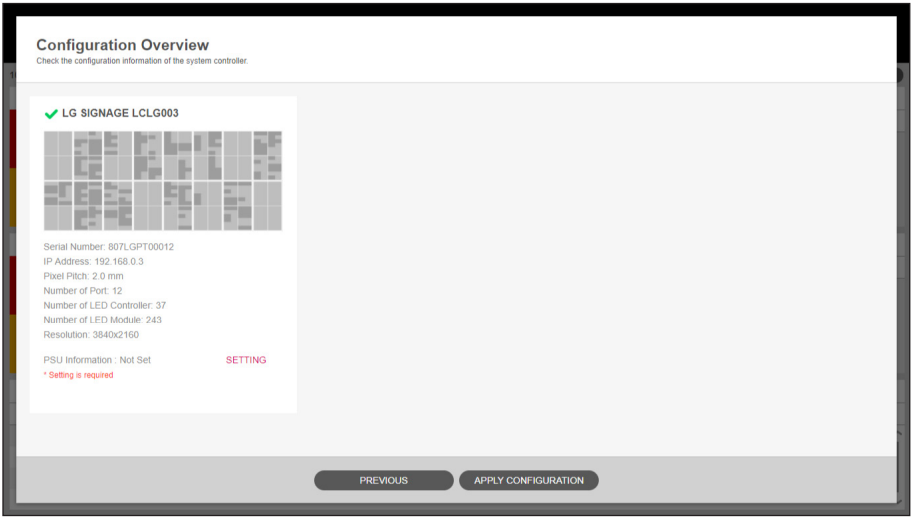
No.	Item	Description
❶	**Port connection information**	Displays the actual port connection status, and you can select a port with a mouse click.
❷	**[Add Cabinet]**	Adds a cabinet to the edit area. When moving the mouse cursor in the edit area, the mouse cursor changes to the Add Cabinet icon, and when clicking the mouse in the edit area, a cabinet is added.
❸	**[Read]**	Shows the layout configuration of the selected port, which is stored on the device, on the edit screen.
❹	**Native Resolution Information**	Shows pitch information and cabinet resolution.
❺	**[Cabinet Combination]**	Displays the cabinet configuration information. You can change the port start position and cabinet configuration.
❻	**[Detail Settings]**	You can check the coordinate values of the cabinet and change the coordinate values of each cabinet.
❼	**[Connection Type]**	Sets the connection type for the cabinet.
❽	**[Show LED Screen Connection]**	You can check the connection order of the cabinet through the LED screen.
❾	**[Reset Selected Port]**	Resets the setting information of the selected port on the edit area.

Configuration Summary

This is a step to finally check the information that has been set.

1 Check the configuration information of the system controller, set the Power Supply Unit (PSU) information, and then click the [APPLY CONFIGURATION] button.

- [SETTING]: Sets the total number of PSUs, the IP of each PSU, and port information. However, the PSU setting function will be provided only on the device to which the PSU is connected.



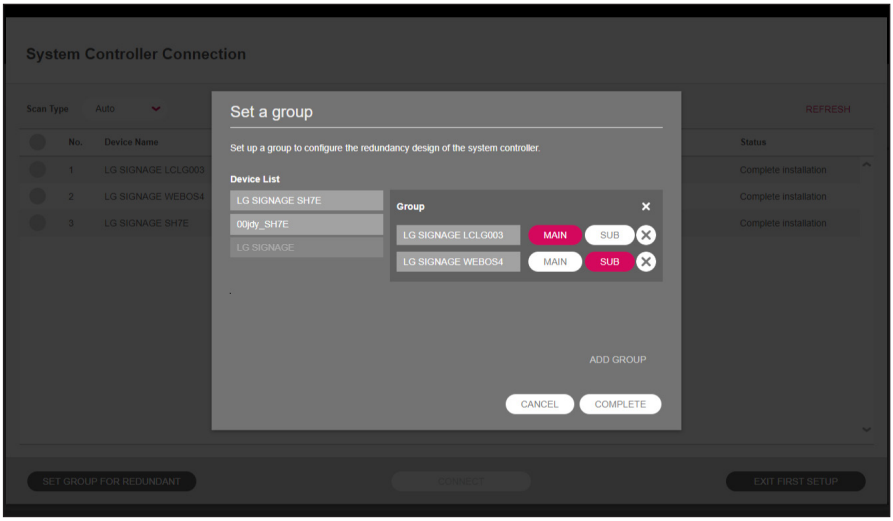
NOTE

- The output layout summary information and the time required to apply the settings will vary, depending on the information of the set LG LED Signage.
- For All-in-One devices (LAxx, MSAD), ensure that the installed LED screen and the preview area display the same pattern image.

<Appendix> [Set group for redundant]

Group the system controller into a master-slave structure, and click the [COMPLETE] button.

- [ADD GROUP]: Adds a new group.



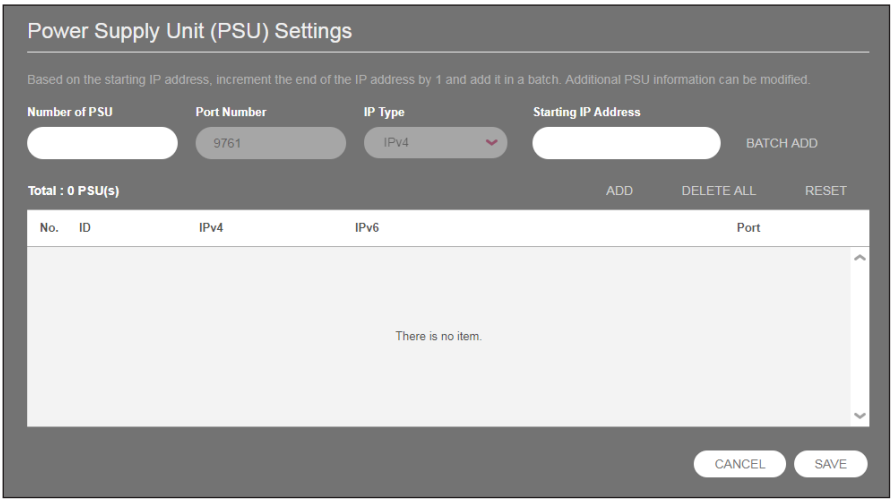
NOTE

- A group can be formed with LG LED Signage devices of the same model name.
- All-in-One devices (LAxx, MSAD) and CSAC-025K model do not support duplex group settings.
- Devices that the port redundancy is applied to cannot be set as the main device for the group.

<Appendix> [Power Supply Unit (PSU) Settings]

Set the IP of each PSU, and click the [SAVE] button.

- [BATCH ADD]: Adds in a lump by increasing the last digit one by one as many as the number of entered PSUs based on the starting IP address.
- [ADD]: Adds a new PSU input field.
- [DELETE ALL]: Deletes all PSU information screens entered.
- [RESET]: Initializes the PSU information saved in a set.



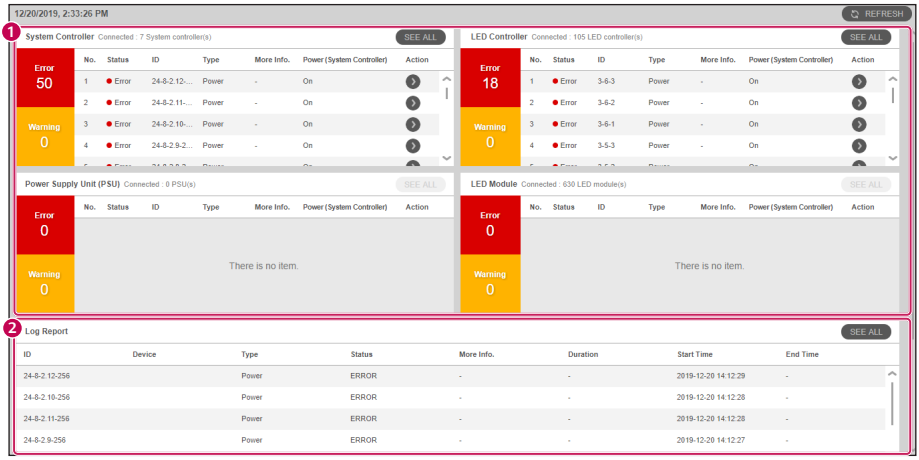
NOTE

- The port number of PSU is fixed as “9761” for the service.

DASHBOARD

You can check the system controller that the layout settings are completed, LED controller, PSU, LED module, error status of receiver card and log report details.

1 Click the [Dashboard] button on the upper side of the program.



No.	Item	Description
1	**Device**	Outputs the error status by the device. - [System Controller]: Temperature, fan, signal - [LED Controller]: Temperature, signal, power - [Power Supply Unit (PSU)]: Temperature, fan, power - [LED Module]: Temperature - [Receiver Card]: Temperature, power Click the Move icon to see the detailed screen of errors for the device.
2	**[Log Report]**	Outputs the error status history of all devices. If you click the [See all] button, it will provide the feature to export as an external file (Excel).

NOTE

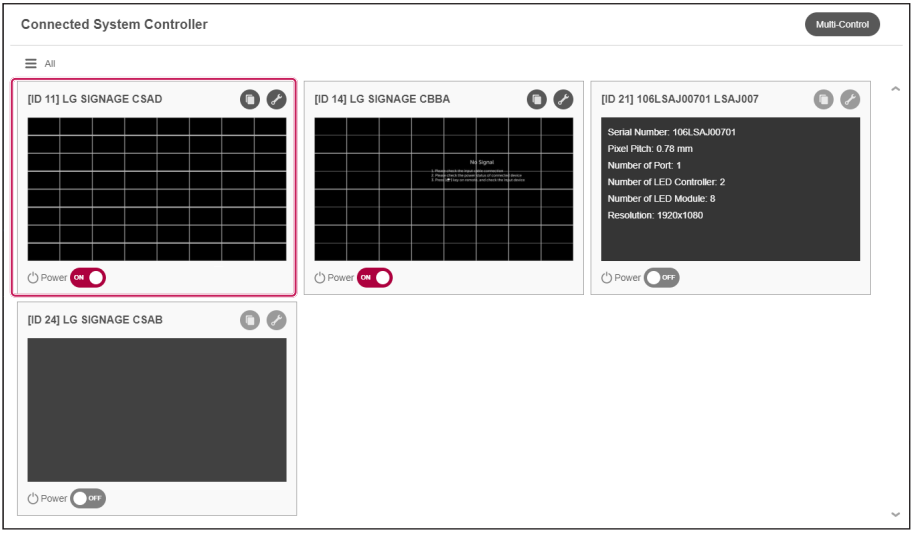
- Provided device items may vary depending on the type of device on which the layout settings are being completed.

DEVICE MANAGEMENT

You can manage devices that you have finished the layout setting.

For the LCLG006 / CVxx / CBBx / CBCx / LAEx model in detail, see the page for management of the receiver card device in <Appendix>.

1 Click the [Management] button on the upper side of the program.



2 Click the layout image of the system controller.

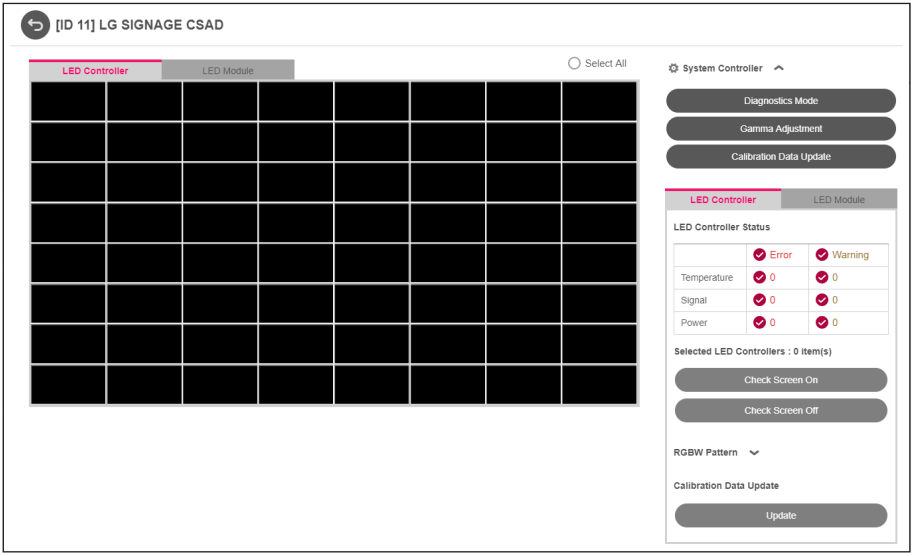
- [Power]: You can manage the power of each system controller.
- [MULTI CONTROL]: Provides the functions for multiple power supply management and device control. However, in the case of multiple device control, it only provides the control of the functions of picture and time.
- [Setting data cloning]: You can copy the set values of the device to another device.
- [Device Settings]: You can check and change the set values of the device.

NOTE

- It will provide the device management and control functions only for devices that are powered on, and you can check the layout information by hovering over a device that is powered off.
- The power-on feature works normally when the device's WOL (Wake On LAN) setting has been turned on.

3 You can manage the LED controller and LED module.

- Check the status of each LED controller/LED Module, and click on the area to manage.
- Hover over each LED controller/LED Module to check the status summary information.



[System Controller]

[Diagnostics Mode]

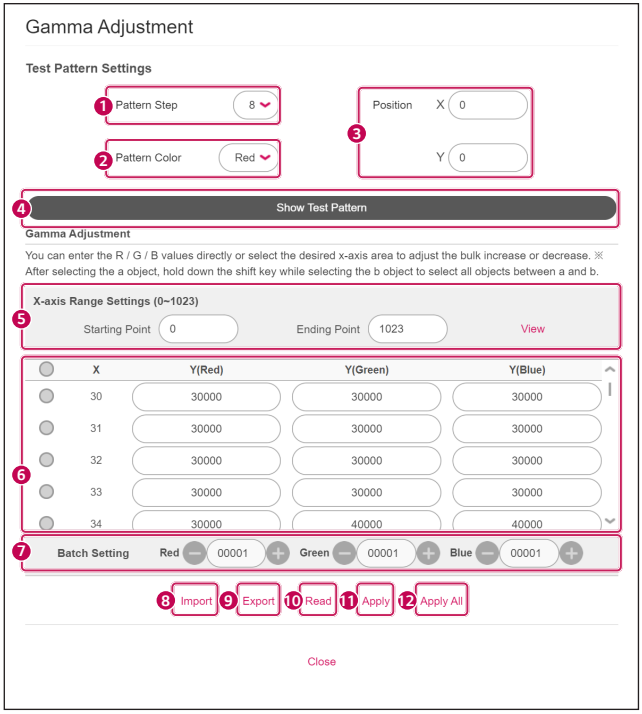
- You can diagnose and check the status of the RGB sensor in the LED module.

[Calibration Data Update]

- You can update the system controller's colour calibration data.

[Gamma Adjustment]

- You can fine-tune the gamma by adjusting the gamma table values and display a Grayscale pattern image on the display.



No.	Item	Description
1	[Pattern Step]	You can select the level of the Grayscale pattern.
2	[Pattern Color]	R, G, B, W are supported, and you can select and apply the default color of the Grayscale pattern.
3	[Position]	You can set the position of the Grayscale pattern image.
4	[Show Test Pattern]	You can output the Grayscale pattern image according to the set position.
5	[X-axis Range Settings]	You can output the gamma table row corresponding to the range by specifying the starting and ending ranges of the X-axis. Use it to fine-tune the gamma in a certain range.
6	Gamma Table	You can set the gamma table values according to red, green, and blue.
7	[Batch Setting]	You can increase or decrease the set values for each color by using the "+" and "-" buttons only for the column selected with the checkbox. After clicking a specific checkbox and clicking on the "Shift" key + any checkbox, all items between the first clicked items are selected.
8	[Import]	You can read the currently set gamma table information into a file.
9	[Export]	You can save the currently set gamma table information as a file.
10	[Read]	You can read the saved values of the current set.
11	[Apply]	You can apply the modified values.
12	[Apply All]	You can apply the modified values to the entire cabinet of the controller.

[LED Controller]

[LED Controller Status]

- Displays the status information of the connected LED controller.

[Check Screen On/Off]

- You can check the location of the selected LED controller.

[RGBW Pattern]

- You can output an RGBW pattern to all or selected LED controllers.
- [APPLY]: Applies the set RGBW pattern values to the user-selected LED controller area.
- [ALL PATTERN OFF]: Ends the RGBW pattern applied to all LED controllers.

[Calibration Data Update]

- You can update the LED controller's colour calibration data.

[LED Module]

[LED Module Status]

- Displays the status information of the connected LED module.

[Check LED Module]

- You can check the location of the selected LED module.

Calibration

- [Reset]: Initializes the calibration value set for the selected LED module.
- [Cancel Execution]: Returns the value to the state before the change.
- [Apply]: Applies the changed calibration value to the selected LED module.

Edge Calibration

- [Reset]: Initializes the edge calibration value set for the selected LED module.
- [Cancel Execution]: Returns the value to the state before the change.
- [Apply]: Applies the changed edge calibration value to the selected LED module.
- [APPLY TO ALL LED MODULES]: Applies the changed edge calibration value to all LED modules.
- [White] : The current value for [Red], [Green], [Blue] can be increased or decreased by the relative value entered.
- [Red], [Green], [Blue]: An absolute value can also be entered for each setting.

[Calibration Data Update]

- You can update the LED module's colour calibration data.

NOTE

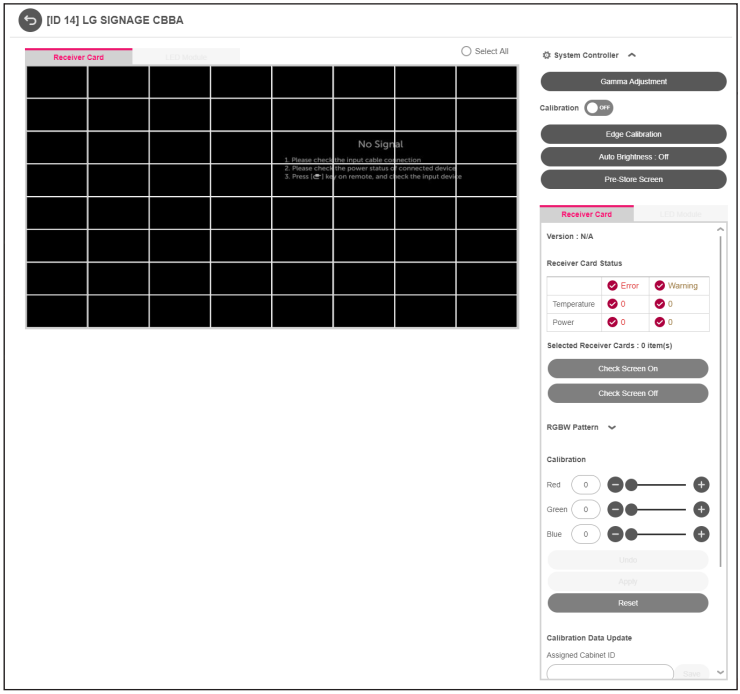
- Supported features may vary depending on the model.

<Appendix> the page for the management of the receiver card

1 Click the [Management] button on the upper side of the program.

2 Click the layout image of the system controller.

- Position the mouse over each receiver card to check the status summary information.
- When you click each receiver card, you can check the receiver card version, status information, and screen.



[Version]

- Displays the version of the connected receiver card.

[Receiver Card Status]

- Displays the status information of the receiver card.

[Check Screen On/Off]

- You can check the location of the selected receiver card.

[Calibration]

- [On/Off]: Can turn on/off all of the connected screens.
- [Reset]: Initializes the set color correction value of the selected device.
- [Undo]: Initializes the changed value to the value set before.
- [Apply]: Applies the changed color correction value to the selected device.
- [Apply All]: Applies the changed color correction value to all devices.

[Calibration Data Update]

- Updates the cabinet ID settings and colour calibration data.

[LDM Calibration Data Upload]

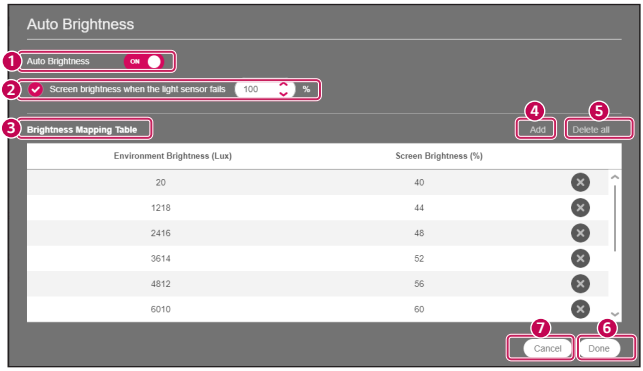
- Uploads the color correction data in the LDM flash memory to the receiver card flash memory.

[RGBW Pattern]

- [APPLY]: Applies the RGBW pattern values set for all ports.
- [ALL PATTERN OFF]: Ends the RGBW pattern applied to all ports.

[Auto Brightness]

- You can set the auto brightness value using the light sensor.



No.	Item	Description
1	**[Auto Brightness]**	Selects whether or not to activate the light sensor.
2	**[Screen brightness when the light sensor fails]**	Sets the default screen brightness (%) when the light sensor does not operate normally.
3	**[Brightness Mapping Table]**	Sets the screen brightness (%) according to the surrounding brightness (Lux). You can set up to 15 mapping values.
4	**[ADD]**	Adds an entry window for a new mapping value to the brightness mapping table.
5	**[DELETE ALL]**	Deletes all mapping values entered in the brightness mapping table.
6	**[DONE]**	Saves the auto brightness setting values and closes the pop-up.
7	**[CANCEL]**	Closes the pop-up without saving the auto brightness setting value.

NOTE

- When changing the position of the light sensor, reset the auto brightness value.

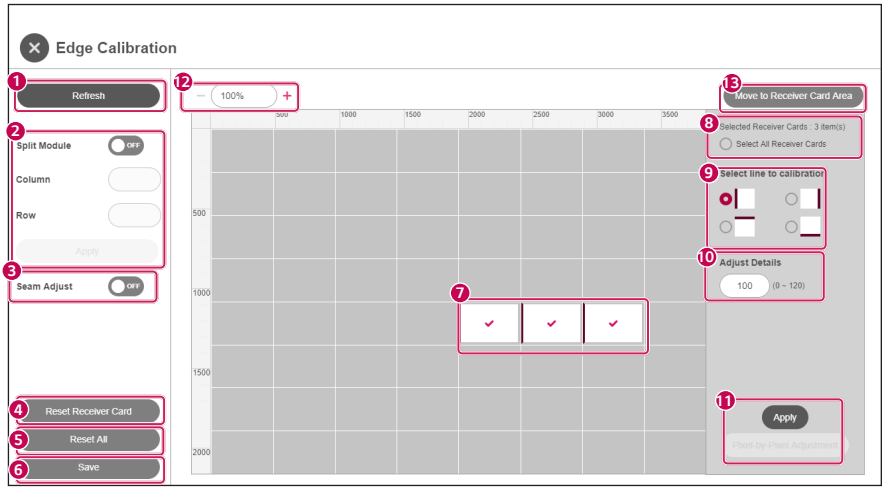
[Gamma Adjustment]

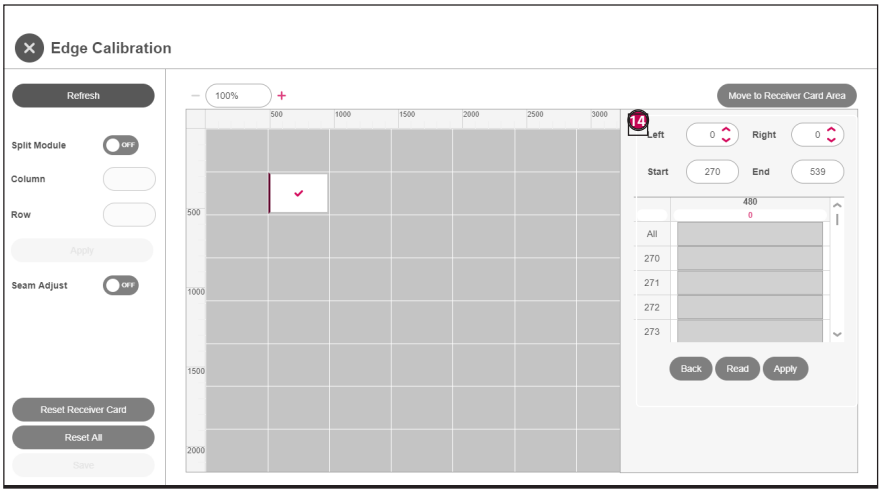
- You can set the gamma values and the gamma table values.

No.	Item	Description
1	**[Gamma]**	The gamma value can be set between 1.0 and 5.0. The gamma table value changes depending on the gamma value settings.
2	**[Gamma Table]**	You can set the gamma table values for red, green, and blue. The range of the X-axis is between 0 and 255, while the range of the Y-axis depends on the light sensor connected.
3	**[APPLY]**	Temporarily saves the currently set gamma values and gamma table values onto the receiver card.
4	**[REFRESH]**	Shows the receiver card's currently set gamma values and gamma table values.
5	**[EXIT WITHOUT SAVING]**	Closes the pop-up without permanently saving the values temporarily stored on the receiver card. The stored values will be deleted when the receiver card reboots.
6	**[SAVE & EXIT]**	Closes the pop-up while permanently saving the temporarily stored values onto the receiver card. Stored values are retained when the receiver card reboots.

[Edge Calibration] - LCLG006 / CVxx / CBBx / CBCx

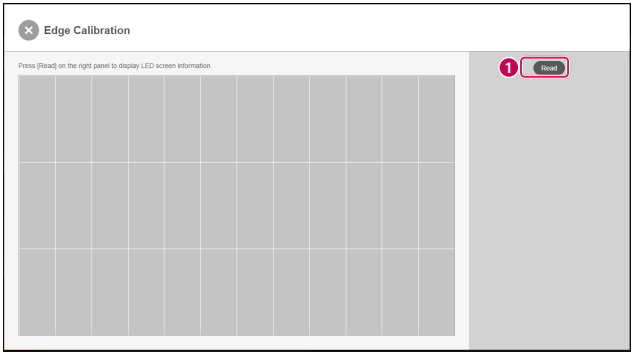
You can change the edge pixel value of the receiver card.

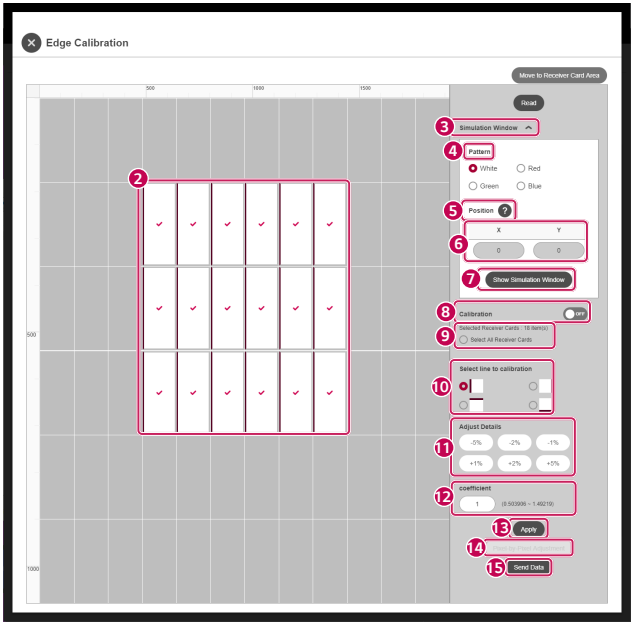


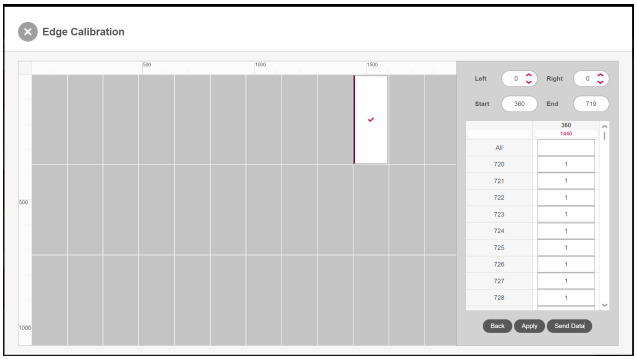


No.	Item	Description
❶	**[REFRESH]**	Resets the edge color calibration screen.
❷	**[Split Module]**	Divides the area of the receiver card into columns and rows and outputs the result to the edit screen. You must click the [Apply] button to apply the result.
❸	**[Seam Adjust]**	When you move the mouse on the edit screen, the location is displayed on the actual device.
❹	**[RESET RECEIVER CARD]**	Resets the edge pixel values of the selected receiver card.
❺	**[RESET ALL]**	Resets the edge pixel values of the receiver cards in all ports.
❻	**[SAVE]**	This function is supported for CVxx / CBBx / CBCx devices, saving the edge values that have been applied to the receiver card on the receiver card. If not saved, the applied values will be deleted when the receiver card reboots.
❼	**Select**	Drag or click to select the area needing adjustment.
❽	**Select All / Unselect**	You can select or unselect all areas and view the number of selected areas.
❾	**[Select line to calibration]**	You can select a direction for edge adjustment in the selected area.
❿	**[Adjust Details]**	Enter an edge value for the selected area.
⓫	**[APPLY]**	You can adjust the pixel values for individually selected areas.
⓬	**Screen Zoom In/Out**	Enlarges or reduces the layout area according to the selected ratio. The zoom in/out ratios provided based on the receiver card resolution are as follows: - Default: 100 - 1600 % - 50 pixels or less: 400 - 1600 %
⓭	**[Move to Receiver Card Area]**	Move the cursor to the receiver card within the layout area.
⓮	**Edge properties**	When you click the edge area, you can check and change the selected edge pixel value. The range of the edge properties provided differs according to the connected device. - LCLG006: You can check and change each pixel value of the selected edge. The position of the x coordinate and the width of the starting position should be an even number. - CVxx / CBBx / CBCx: You can change the entire pixel value of the selected edge. Checking the currently applied value is not supported.

[Edge Calibration] - LAEx







No.	Item	Description
❶	**[Read]**	Reads the screen information. When reading is complete, the menu for edge calibration is enabled.
❷	**Select**	Drag or click to select the area needing adjustment.
❸	**[Simulation Window]**	You can expand the menu for simulation.
❹	**[Pattern]**	You can select the background color of the simulation screen.
❺	**[Position]**	You can check the guide for setting the position of the simulation screen.
❻	**X, Y**	Enter the position value of the simulation screen.
❼	**[Show Simulation Window]**	Outputs a new screen for simulation using the screen information read through [Read]. When setting the coefficient value for the selected line, the changed value is reflected on the simulation screen in real-time.
❽	**[Calibration]**	You can set the calibration On/Off for the entire connected screen.
❾	**Select All Areas**	You can select or unselect all areas and view the number of selected areas.
❿	**[Select line to calibration]**	You can select the edge calibration direction for the selected area.
⓫	**[Adjust Details]**	When the Preset button is clicked, a relative value is applied to the coefficient value and the read screen data is changed. If the simulation window is open, you can see real-time changes on the simulation screen.
⓬	**[Coefficient]**	You can directly set the relative value applied to the edge.
⓭	**[Apply]**	When you click the Apply button, a file for the changed value is created.
⓮	**[Pixel-by-Pixel Adjustment]**	It is enabled when a single area is selected, and you can adjust the pixel unit for the selected line. Depending on the direction of the selected line, you can increase the adjustment line by adjusting the left, right, up, and down values, and you can set the start and end points of the pixels you want to adjust using the Start and End buttons.
⓯	**[Send Data]**	You can apply the changed values to the actual screen by sending the modified data to the screen using the Apply button.

[Pre-Store Screen]

- If there is an error in the receiver card connection, the stored image is output. Only CVxx / CBBx / CBCx devices support this function.

NOTE

- When using the [Simulation Window], set [Calibration] to Off before use.
- Supported features differ by device.

	LCLG006	CVxx / CBBx / CBCx	LAEx
[Check Screen]	O	O	X
[Calibration]	O (Color calibration for each port)	O (Color calibration for each receiver card)	O (Color calibration for each port)
[Calibration Data Update]	X	O	X
[Auto Brightness]	X	O	X
[Gamma Adjustment]	X	O	X
[Edge Calibration]	O	O	O
[Pre-Store Screen]	X	O	X

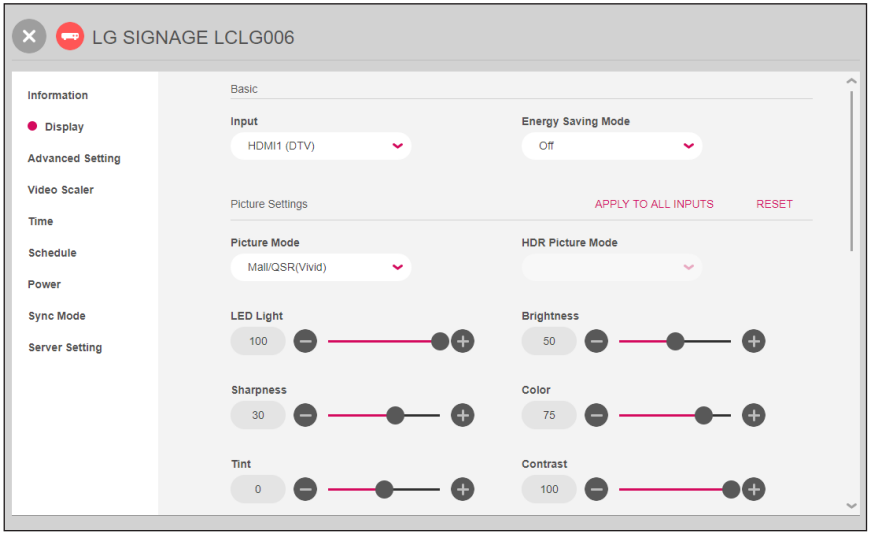
DEVICE CONTROL

You can check or change specific functions of the system controller.

You can control information, image, advanced settings, output settings, time, schedule, power, sync mode, server settings, and acoustic items.

1 Click the Control icon ( ) of the system controller at the Management tab.

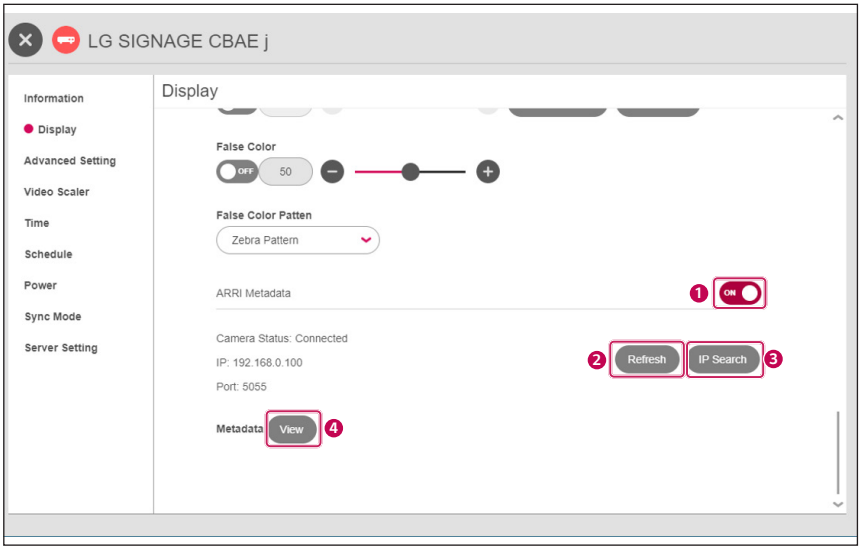
2 It checks or changes the specific functions of each item.



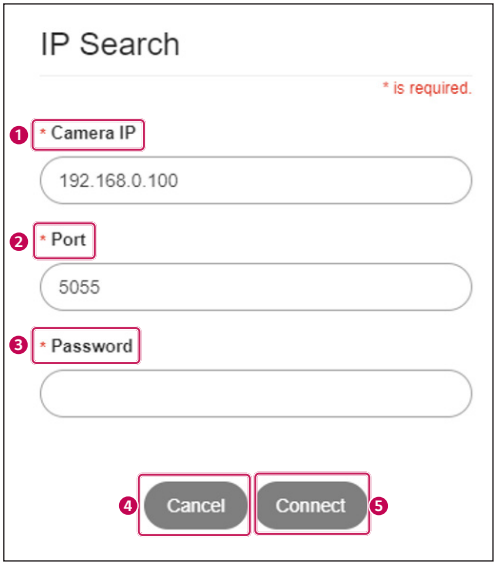
NOTE

- The items of specific control available may vary depending on whether a function is supported or not by each device.
- For information on detailed control items, see the “Appendix - Detailed Device Control Items.”
- Output settings are applied when the LED Signage installed is using external input.

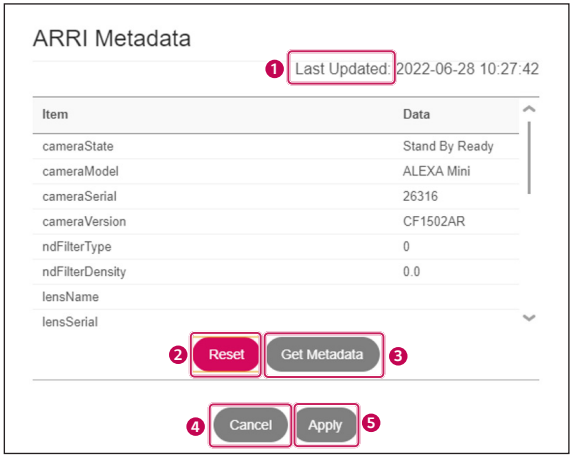
ARRI Metadata



No.	Item	Description
1	**[On/Off]**	You can connect and disconnect the ARRI camera.
2	**[Refresh]**	You can update ARRI camera reconnection attempts and connection status information.
3	**[IP Search]**	Displays the ARRI camera connection information screen.
4	**[View]**	You can check the ARRI camera metadata information.



No.	Item	Description
1	**[Camera IP]**	Enter IP for the ARRI camera connection.
2	**[Port]**	Enter the access port for the ARRI camera connection.
3	**[Password]**	Enter the access password for the ARRI camera connection.
4	**[Cancel]**	The current window can be closed.
5	**[Connect]**	Sends the entered information to the camera to connect.

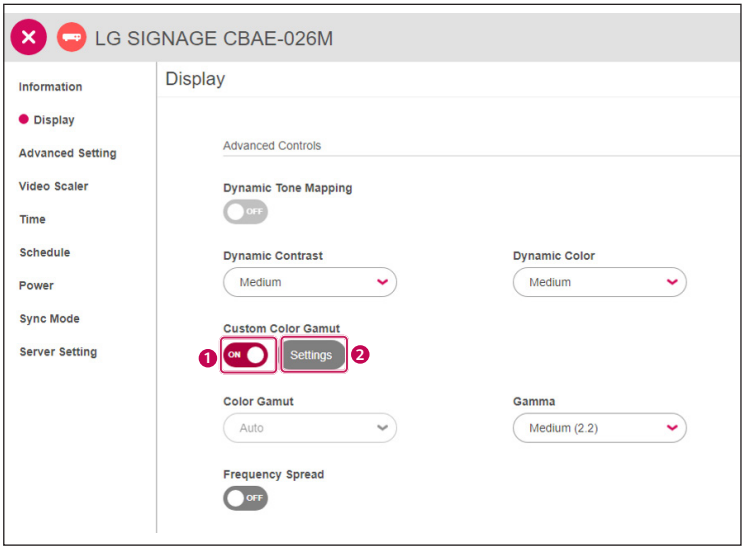


No.	Item	Description
1	**Updated date**	Displays the time the metadata was read.
2	**[Reset]**	Reverts the metadata applied.
3	**[Get Metadata]**	Reads the metadata information again.
4	**[Cancel]**	The current window can be closed.
5	**[Apply]**	Applies metadata.

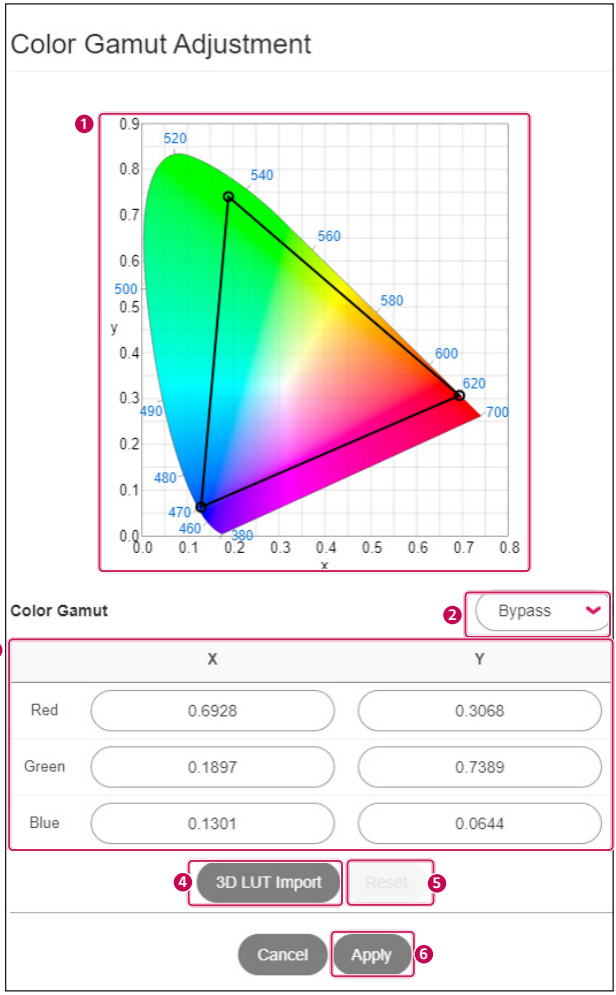
NOTE

- Resetting reverts to the initial data of when the current window was opened.
- Modifications to only FrameRate and CCT are supported.

User Color Gamut (+3D LUT)



No.	Item	Description
1	**[On/Off]**	You can activate the function by changing the user color gamut switch to ON.
2	**[Settings]**	By selecting [Settings], you can set the user color gamut and use the 3D LUT function.

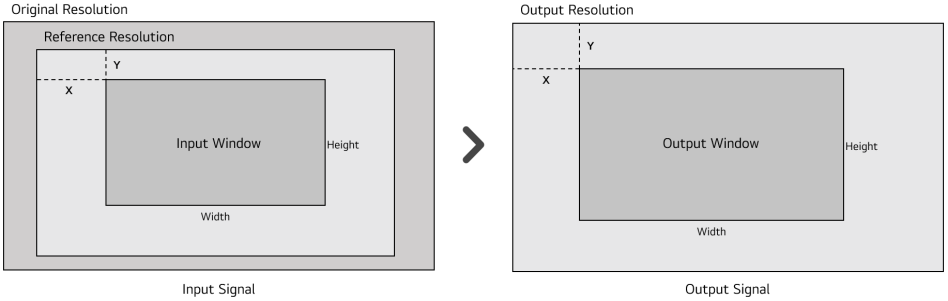

Color Gamut Adjustment
1
0.9
0.8
0.7
0.6
500
0.5
y
0.4
0.3
490
0.2
480
0.1
470
460
0.0
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8
x
520
540
560
580
600
620
700
380
Color Gamut
2
Bypass
3
X
Y
Red
0.6928
0.3068
Green
0.1897
0.7389
Blue
0.1301
0.0644
4
3D LUT Import
Reset
5
Cancel
Apply
6

No.	Item	Description
❶	**Layout Screen**	You can adjust the color coordinates by dragging and dropping each vertex with the mouse on the layout screen.
❷	**Color Gamut Selection Box**	Selects the color gamut provided in the color gamut selection box.
❸	**Color Gamut Coordinates**	You can change the color coordinates by changing the X, Y coordinates of the color gamut, and the layout color coordinates are also adjusted when you change them. When the color coordinates are adjusted through steps ❶, ❸, a user item is created and displayed in the ❷ selection box.
❹	**[3D LUT Import]**	You can import and set 3D LUT files from outside by selecting [3D LUT Import]. When the import is complete, the 3D LUT file name is displayed in the ❷ selection box.
❺	**[Reset]**	You can delete the User item by selecting the [Reset] button.
❻	**[Apply]**	Selects the [Apply] button to save the User item.

NOTE

- When the Reset button is clicked, the selected user or 3D LUT file is deleted and automatically set to BT.709.
- 3D LUT upload only supports the ".cube" file format.
- When applying 3D LUT files, color gamut layouts and color coordinate adjustments are not available.

Video Scaler



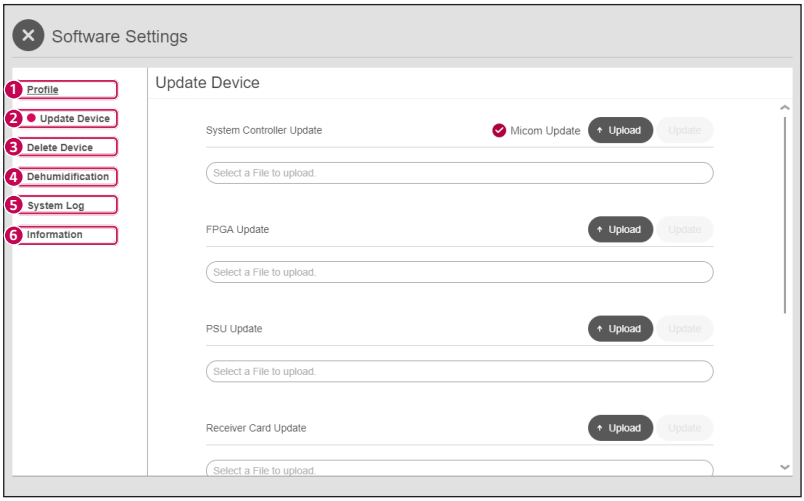
No.	Item	Description
1	**[On/Off]**	Sets the video scaler switch to ON to enable the feature.
2	**[Reference Resolution]**	Sets the reference resolution of the input screen.
3	**[Custom Resolution]**	When using the custom resolution, the original resolution can be set by toggling the switch to ON.
4	**[Input Window]**	Sets the position and size of the area transmitted from the input signal based on the reference resolution.
5	**[Output Window]**	Sets the position and size of the image output.
6	**[Apply]**	Applies the changed video scaler settings to the device.

SOFTWARE SETTINGS

You can check or change the account information, device information, and software information about the software of LG LED Assistant.

1 Click the Software Settings icon ( ) on the upper right side of the program.

2 It checks or changes the specific functions of each item.



No.	Item	Description
1	**[Profile]**	You can check and change your e-mail account. You can change your password.
2	**[Update Device]**	You can update the F/W of the equipment that you have finished the layout setting. - System controller, FPGA, Power Supply Unit (PSU), Receiver card, setting data, SDI FPGA
3	**[Delete Device]**	You can delete the information of the equipment with layout settings completed.
4	**[Dehumidification]**	You can run/stop the dehumidification mode or set auto dehumidification. You can click the icon ( ) to view the dehumidification mode log.
5	**[System Log]**	You can change the automatic deletion cycle of the system log saved in the installation folder of LG LED Assistant.
6	**[Information]**	You can check the software information about the LG LED Assistant.

NOTE

- When the update for the device is successfully finished, check the version of each item to see if the update runs normally for each item. To view the correct version information of the receiver card after the update, reconnect the power cable.
- Once launched, the dehumidification mode is completed after 24 hours.
- Dehumidification mode support may vary depending on the model.

APPENDIX

Used Port Information

The LG LED Assistant server is operated via the port below.

Port Number	Function	Protocol Type
8787	LG LED Assistant server	TCP/IP
6380	Redis DB	TCP/IP
9	WOL(Wake On Lan)	UDP
3000	Device Communication (http)	TCP/IP
3001	Device Communication (https)	TCP/IP
6960	Device Search	TCP/IP

Detailed Device Control Items

The detailed device control items are as follows:

Category	Detailed Control Item
Information	• Informationon Setting for Redundant: Status of the redundant device, Setting data cloning • Information: Device Name, Model Name, Serial Number, Software Version, WebOS Version, Micom Version, FPGA Version, SDI FPGA Version, PSU Version • Status: Signal, temperature, fan • Network Status: IP Address, Subnet Mask, Gateway, Default DNS, MAC Address
Display	• Default: Input, SDR/HDR signal format, HDR EOTF, Energy Saving Mode, OSD Select • Picture settings: Apply to All Inputs, Reset, Picture Mode, HDR Picture Mode, LED Light, Brightness, Sharpness, Color, Tint, Contrast, Color Temperature, RGB-gain • Advanced settings: Dynamic Tone Mapping, Dynamic Contrast, Dynamic Color, Color Gamut, Gamma, User Color Gamut, Frequency Spread • Additional settings: Noise Reduction, MPEG Noise Reduction, Black Level, Real Cinema, TruMotion, De-Judder, CamSync, False Color, False Color Pattern, ARRI Metadata
Advanced Setting	• Default: Ultra HD Deep Color, HDMI IT Content, OPS Control Interface Selection, Low Latency, Factory Calibration, Dynamic Brightness, Phase Shift, Genlock, SDI Color Format, Frame Control, Waveform, Vectorscope • Input Manager • Fail Over
Video Scaler	• Default: Reference resolution, Custom resolution, Input/Output screen
Time	• Default: Date, Time, Coordinated Universal Time (UTC) • Daylight Saving Time
Schedule	• Power On/Off Schedule • Holiday Setting • LED Light Schedule Setting
Power	• Default: No-signal Power Off, DPM, DPM Wake Up Settings, PM Mode, Power On Delay, Power On Status, Power History • PSU: PSU Power Management, PSU information, PSU status
Sync Mode	• RS-232C Sync: Sync Mode, Time Sync, Content Sync
Server Setting	• SuperSign CMS Server • SI Server • Status Mailing
Sound	• Default: Sound Mode, Volume, Mute

NOTE

- The device control item may differ depending on the model versions.

Add an Exclusion to Windows Defender Anti-Virus

Windows 10

If Windows Defender anti-virus detects LG LED Assistant program as malware, you can add the folder to its exclusion list to prevent it from blocking the program.

1 Go to [Start] > [Settings] > [Updates & Security] > [Windows Security] > [Virus & threat protection] > [Virus & threat protection settings] > Add or remove exclusions.

2 Under Add an exclusion, select the folder where LG LED Assistant is installed.

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