

SHARP®

PN-L703W

PN-L603W

**WIRELESS CONTROLLER
OPERATION MANUAL**

Contents

Introduction	3
System requirements for the computer to be connected.....	5
Preparations	6
Change the monitor to Wireless mode	8
Connect the computer to the wireless controller	8
MirrorOp for SHARP preparations	11
Start MirrorOp for SHARP	12
Wireless mode screen	14
Displaying the computer screen	15
Operation from the monitor	15
Displaying multiple screens at once.....	15
Operation from the connection software	16
Controlling the computer whose screen is displayed (Conference control mode)	21
Displaying the image in a web browser (WebSlides)...	22
Displaying a computer screen on multiple monitors...	23
Actions when a screen is displayed	24
Drawing on the screen with a pen (Direct Drawing)...	24
Saving the screen as an image file	25
Exiting	26
Settings	27
Starting from a commercially available USB flash drive	30
Uninstalling the connection software	31
Using as a whiteboard (Direct Drawing)	32
Intellectual Property Rights and Other Matters	34

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- The screens and procedures are examples. The contents or details may vary depending on the screen configuration and OS version, etc. Windows 7 is used as an example in this manual.
- This manual does not contain basic operating instructions for Windows and Mac OS.

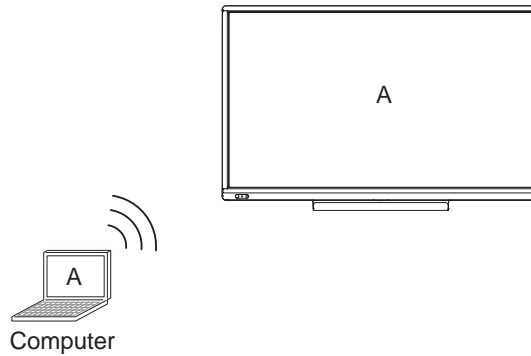
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Introduction

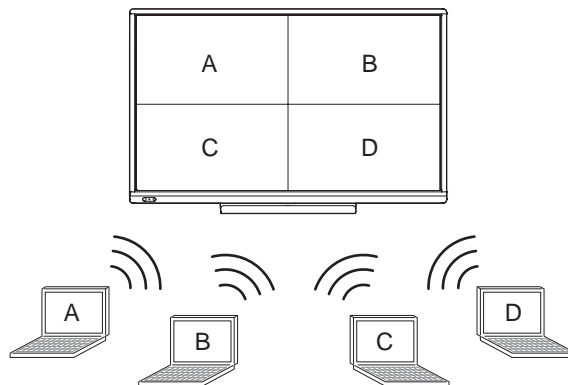
■ Wireless

- On the monitor you can display a screen of a computer that is connected to the same network as the monitor's built-in wireless controller.
- You can display the screen by wireless LAN.



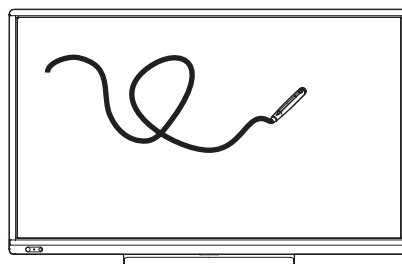
■ Simultaneous display

- You can display the screens of up to 4 computers at once.



■ Direct Drawing

- You can use the monitor as a white board. (See page 32.)
- Using a touch pen, you can write on the displayed screen in Wireless mode. (See page 24.)



■ Conference control mode

- A conference admin can be designated to manage which computer screens are displayed. (See page 21.)

■ WebSlides

- The screen that is displayed in Wireless mode appears in the web browser of the computer that is connected to the wireless controller. (See page 22.)

TIPS

- You can connect up to 10 devices to the wireless controller.
- The wireless LAN communication range is about 10 m.
In the following cases, the communication speed may slow down or communication may not be possible.
 - An obstacle is present
 - Interference occurs with another wireless device using the same frequency
 - Electromagnetic interference occurs due to the magnetic field or static electricity of a microwave oven or other device
- The computer screen information is sent to the wireless controller and displayed on the monitor.
For this reason, there may be a delay in the display or it may not be possible to display the screen correctly.
Correct operation may not be possible from some applications.

! Caution

- To keep the performance of the wireless controller stable, put the monitor in the Power off (Standby mode) state once a day.

System requirements for the computer to be connected

CPU	Intel Core2Duo 2.8 GHz or faster (Intel Core i5 or faster is recommended if audio and video will be used)
OS	Windows 7 (32-bit version / 64-bit version), Windows 8 (32-bit version / 64-bit version), Windows 8.1 (32-bit version / 64-bit version), Windows 10 (32-bit version / 64-bit version), Mac OS X v10.9, Mac OS X v10.10
Memory	At least 2 GB (4 GB or higher is recommended)
Free space on hard drive	At least 200 MB

TIPS

- If you have an Android device, you can install and use MirrorOp Presenter by Awind, Inc. from the Google Play store.
- If you have an iOS device, you can install and use MirrorOp Presenter by Awind, Inc. from the App Store.
- For information about MirrorOp Presenter, contact Awind, Inc.

■ USB flash drives that can be used with the wireless controller

USB	2.0/3.0
File system	FAT/FAT32
Capacity	Up to 32 GB

- USB flash drives with approximate dimensions 12 mm (H) × 22 mm (W) × 60 mm (D)* or less. (*: Excluding the USB port)
- Do not use a USB flash drive that has a security function or write protection function.

! Caution

- Wait until processing has finished (a message appears) before removing the USB flash drive. Do not remove during processing (during access).

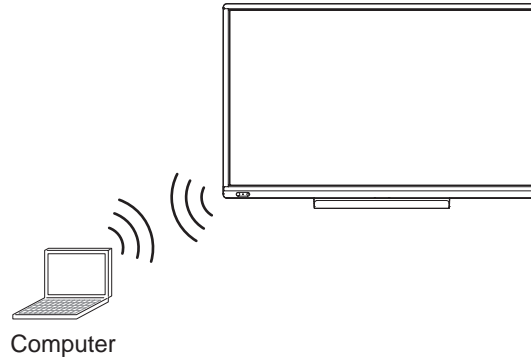
Preparations

Connect the wireless controller and the computer.
After connecting, configure wireless controller settings if needed to connect to an existing network.
For details, consult your network administrator.

Connect the wireless adapter to the wireless controller. (See setup manual.)

■ Connecting only the wireless controller and the computer.

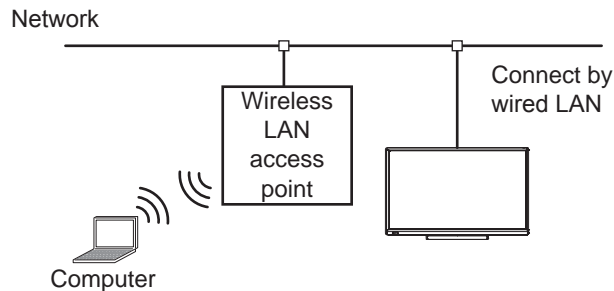
Directly connect the wireless controller and the computer by wireless LAN.
When connecting for the first time, connect directly as well.



■ Connecting the wireless controller to an existing network by wired LAN

If an access point already exists:

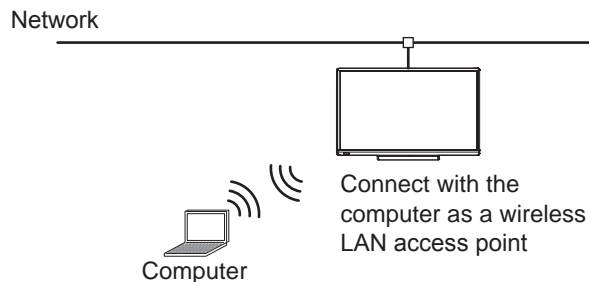
Connect the wireless controller to the existing network by wired LAN.
Connect the computer to the wireless controller from an existing access point.



- Set the wireless controller appropriately for the existing network.

If there is no access point:

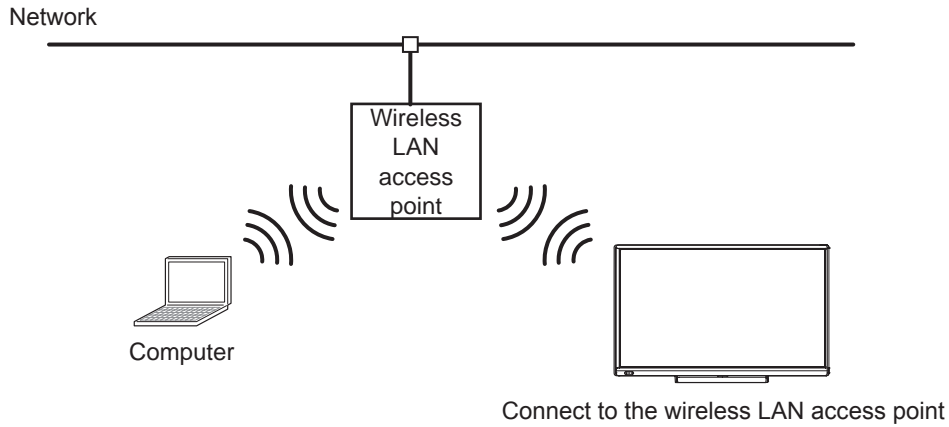
Connect the wireless controller to the existing network by wired LAN.
Connect the computer to the access point of the wireless controller.



- Set the wireless controller appropriately for the existing network.
- Set the wireless controller to access point mode.
- * The wireless LAN access point function of the wireless controller cannot be used when the monitor power is off.

■ Connecting the wireless controller to an existing network by wireless LAN

Connect the wireless controller and computer to an access point of the existing network by wireless LAN.



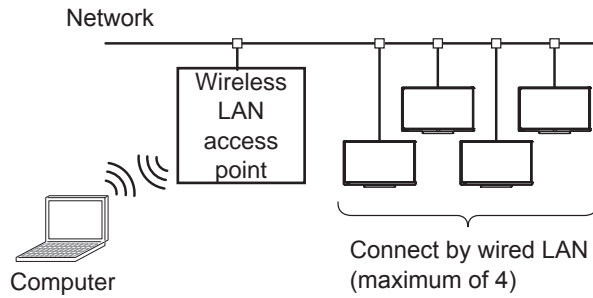
- Set the wireless controller appropriately for the existing network access point.
- Set the wireless controller to client mode. (See page 28.)

■ Using an existing network access point to display the screen of 1 computer on multiple monitors

You can display a screen on up to 4 monitors.

Connect the wireless controller to the existing network by wired LAN.

Connect the computer to the wireless controller from an existing access point.

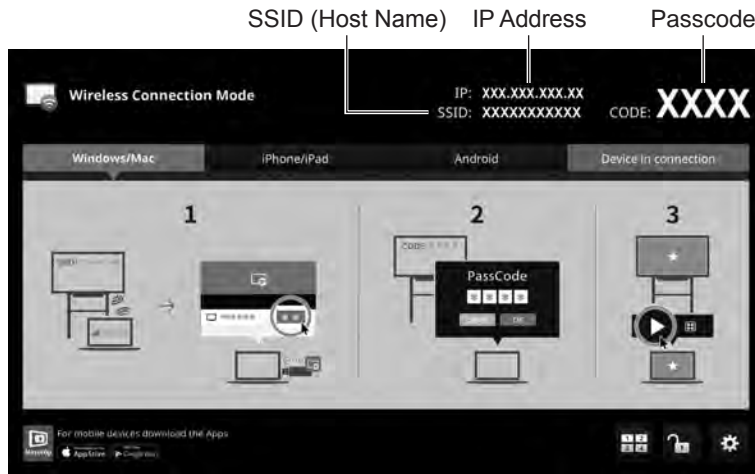


- Set the wireless controller appropriately for the existing network.

Change the monitor to Wireless mode

1. Turn on the monitor power.
2. Change the input mode to “Wireless” with the input mode selection.

The home screen of Wireless mode appears.



Connect the computer to the wireless controller

Directly connect the computer to the wireless controller.

When using a different method, connection is necessary as well to change the settings from the factory default settings. In addition, read your computer’s manual.

TIPS

- The factory default setting for the wireless controller’s wireless LAN is 2.4 GHz.

■ Windows

1. Click  on the taskbar.
2. Select the wireless controller from the wireless network list.

The SSID of the wireless controller is shown in the home screen of Wireless mode.



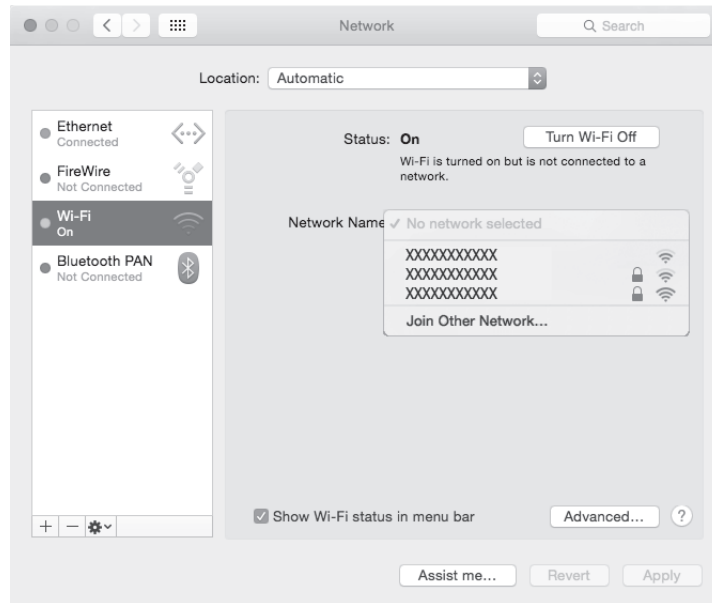
! Caution

- The factory default setting for wireless LAN security is not enabled. For security, set “Encryption” (encryption method) and a “Key”. (See page 10.)

■ Mac OS

1. Click “System Preferences” from the Apple menu (🍏).
2. Click “Network”.
3. Click “Wi-Fi” and select the wireless controller from the wireless network list.

The SSID of the wireless controller is shown in the home screen of Wireless mode.



! Caution

- The factory default setting for wireless LAN security is not enabled. For security, set “Encryption” (encryption method) and a “Key”. (See page 10.)

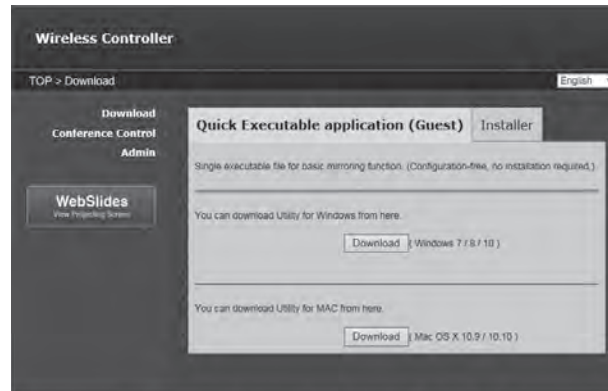
■ Security and key settings

For wireless LAN security, set “Encryption” (encryption method) and a “Key”.

TIPS

- A security warning may appear in some browsers.
Follow the instructions in the browser and continue the procedure.

1. Start the computer’s web browser.
2. Enter the IP address shown on the home screen of Wireless mode in the address bar of the web browser.
The settings screen appears.



3. Click “Admin”.
4. Enter the password and click “Login”.
The default password is “admin”.
5. Click “WLAN Setup”.
6. Set “Encryption” and a “Key”.
7. Click “Apply”.
8. Click “OK”.

Restart the wireless controller.

Connect the computer to the wireless controller. (See pages 8 and 9.)

For the security key, specify the key that you set in the above.

MirrorOp for SHARP preparations

To display the computer screen on the monitor by wireless LAN, connection software (MirrorOp for SHARP) is required. The connection software is in the wireless token.

First read the software license agreement.

To use the connection software, you must agree to the terms of the software license agreement. For the software license agreement, refer to the file below in the token.

\\Installer\EULA-EN.txt

There are 2 methods for using the connection software:

- Use the connection software in the wireless token.
- Install the connection software on the computer to be used from the wireless token.

For example,

- On computers that are not used frequently, you can use the connection software in the wireless token
- On frequently used computers, you can install the connection software

TIPS

- To perform multi-touch, use the installed connection software.
- If you want to use a token for multiple computers at the same time, you can enable starting of the connection software from a commercially available USB flash drive. (See page 30.)

■ Connecting the wireless token

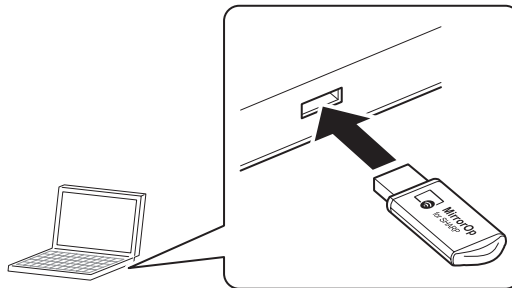
No preparations are needed. Start the connection software from the wireless token. (See page 12.)

■ Installing the connection software from the wireless token (Windows)

! Caution

- This can only be done by a user with administrator authority.

1. Connect the wireless token to the computer.



2. Double-click the setup program in the wireless token.

\\Installer\Windows installer\SHMirrorOp_Win_inst.msi

3. Follow the on-screen instructions.

- When the “User Account Control” screen appears, click “Yes” (or “Allow”).
- When a security warning screen (The publisher could not be verified.) appears, click “Allow”.

This completes the connection software installation procedure.

Next, start the connection software.

TIPS

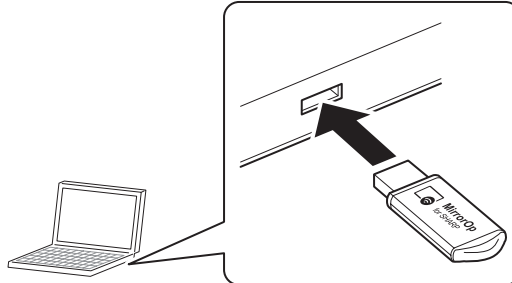
- The connection software can also be downloaded from the wireless controller to the computer. (See page 27.)

■ Installing the connection software from the wireless token (Mac OS)

! Caution

- To install, an administrator name (user name) and password are required.

1. Connect the wireless token to the computer.



2. Double-click the installation file in the wireless token.

\\Installer\Mac installer\SHMirrorOp_Mac.dmg

3. Drag the “SHMirrorOp_Mac.app” icon to the “Applications” folder.

Follow the on-screen instructions.

- If a screen prompting you to enter the name and password appears, enter the name and password of the administrator and click “Install Software” (or “OK”).
- If the “When this software finishes installing, you must restart your computer. Are you sure you want to install the software now?” screen appears, click “Continue Installation”.

This completes the connection software installation procedure.
Next, start the connection software.

TIPS

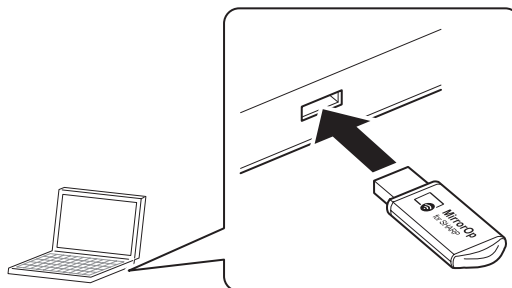
- The connection software can also be downloaded from the wireless controller to the computer. (See page 27.)
- In some cases it may be necessary to install Sound Flower.pkg or Extend desktop.pkg.

Start MirrorOp for SHARP

Start the connection software (MirrorOp for SHARP) on the computer, and connect to the wireless controller.

■ Starting from the wireless token

1. Connect the wireless token to the computer.

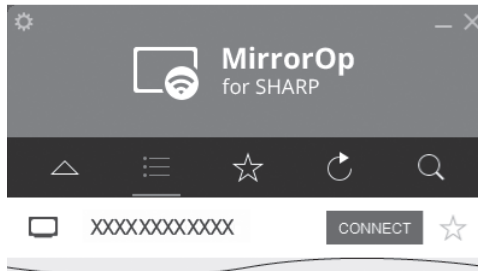


2. Windows: Double-click “SHMirrorOp_Win.exe” in the Autoplay screen.

If the Autoplay screen does not appear, open the wireless token and double-click “SHMirrorOp_Win.exe”.

Mac: Open the wireless token and double-click “SHMirrorOp_Mac.app”.

The connection software starts.



3. Click “☰”, select the wireless controller to be connected, and click “CONNECT”.

The host name of the wireless controller is shown in the home screen of Wireless mode.

4. Enter the passcode and click “OK”.

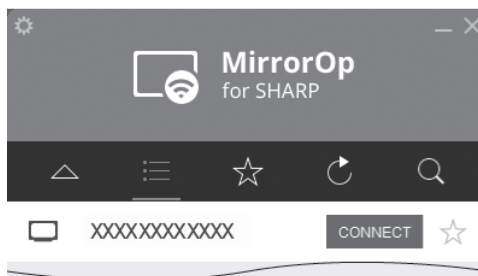
The passcode is shown in the home screen of Wireless mode.

The computer connects to the wireless controller.

■ Starting from the installed/downloaded software

1. Double-click “MirrorOp for SHARP”.

The connection software starts.



2. Click “☰”, select the wireless controller to be connected, and click “CONNECT”.

The host name of the wireless controller is shown in the home screen of Wireless mode.

3. Enter the passcode and click “OK”.

The passcode is shown in the home screen of Wireless mode.

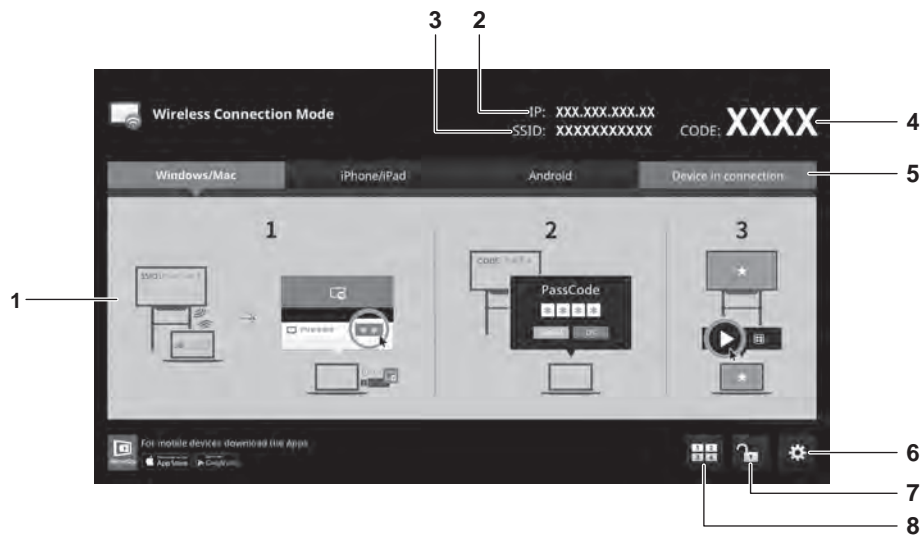
The computer connects to the wireless controller.



TIPS

- The passcode changes for security.
You can change the settings to make the passcode permanent, or connect without entering the passcode. (See page 27.)

Wireless mode screen

In the home screen that appears on the monitor in Wireless mode, you can select computers to be connected and set various functions.



1. Shows how to connect to the wireless controller.
2. Shows the IP address of the wireless controller.
3. Shows the SSID (Host Name) of the wireless controller.
4. Shows the passcode.
5. Show a list of the connected computers.
6. You can change the language used in the wireless controller screen.
You can enable starting of the connection software from a commercially available USB flash drive. (See page 30.)
The current wireless frequency band appears.
(2.4 GHz: 1 to 11 ch / 5 GHz: 36 to 48 ch, 149 to 161 ch, 165ch)
7. Specify whether or not a screen is displayed on the monitor by computer operation. The selection changes each time you touch this.
 : Prohibit screen display by operation from another computer
 : Allow screen display by operation from another computer
8. You can display the screens of up to 4 computers at once.

Displaying the computer screen

Operation from the monitor

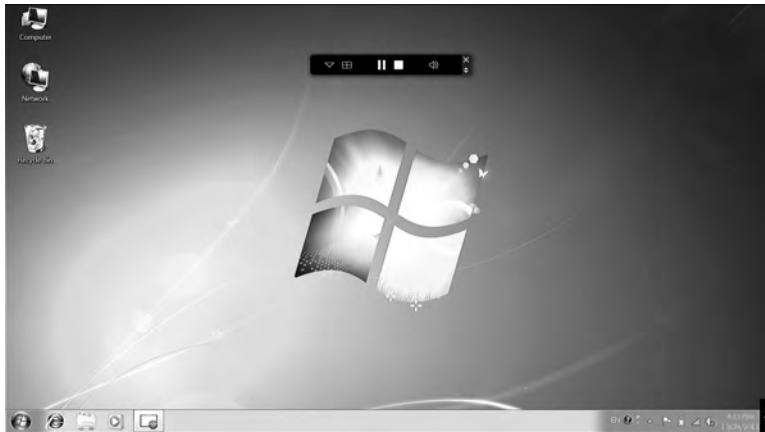
Select the computer to be displayed from the computers that are currently connected to the wireless controller.

1. Touch “Device in connection” in the home screen of Wireless mode.

A list of the currently connected computers appears.

2. Touch the computer to be displayed.

The screen of the computer is displayed on the monitor.



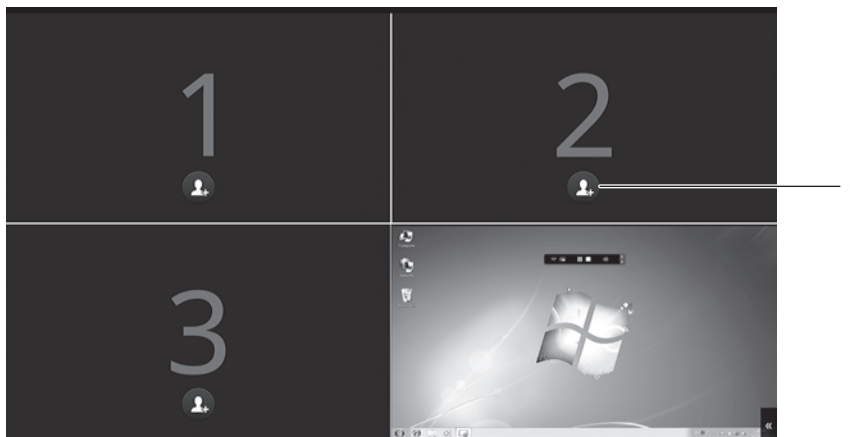
← Toolbar (See page 24.)

Displaying multiple screens at once

You can display the screens of up to 4 computers at once.

The monitor screen is divided into 4 partitions, and you can select the computer that appears in each partition.

1. Touch “Split Screen” () in the home screen of Wireless mode.



1. Add User

The computers that are currently connected appear. Select the computers to be displayed.

Operation from the connection software

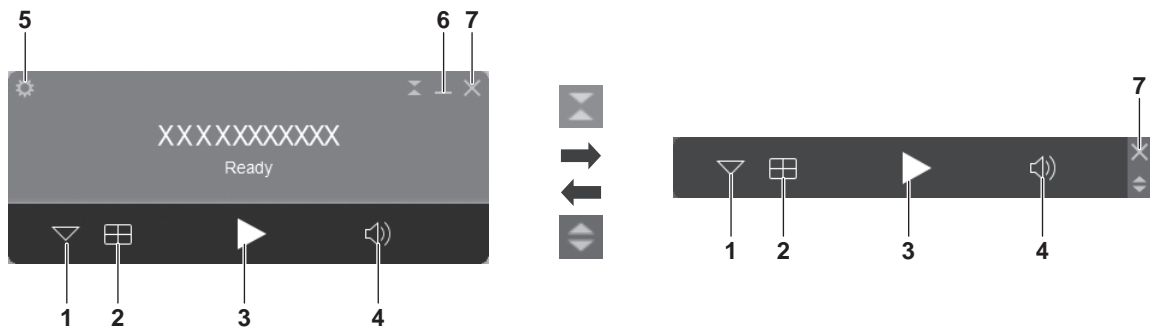
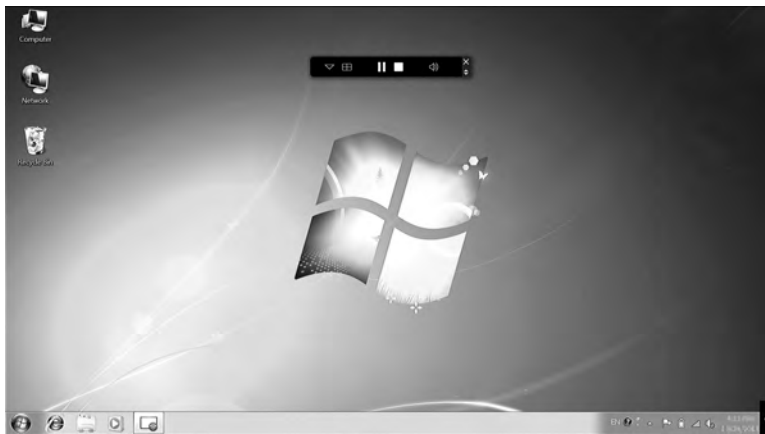
Operate from the connection software on the computer whose screen is displayed.


TIPS

- Screen display by operation from the computer must be allowed. (🔒)
- You can also operate by touching the screen on the monitor.

1. Click “Play” (▶) in the connection software.


The screen of the computer is displayed on the monitor.



1.  Wireless controllers found from the computer appear. (See page 18.)
2. Split Screen
Set 4-screen display.
3. Play
The screen of the computer is displayed on the monitor.
During screen display, “Stop” (◻) and “Pause” (▮▮) appear.
4. Mute
Mute the audio of the currently connected device.
Click when the audio is muted to unmute.
5. Menu
Preferences : Configure settings for the connection software. (See page 19.)
Capture & Save screen : Save the screen as an image file (JPEG). (See page 20.)
Disconnect : Break the connection with the wireless controller.
About : Display the version and license information of the connection software.
Quit : Exit the connection software.
6. Minimize
Minimize the operation screen.
7. Close
Exit the connection software. (See page 26.)

■ Stopping the display

You can stop display of the computer screen on the monitor.


1. Click “Stop” (.
2. Return to the home screen of Wireless mode.

■ Pausing the display

You can pause the display of the computer screen on the monitor. When paused, the screen will not change even if an action is performed on the computer.

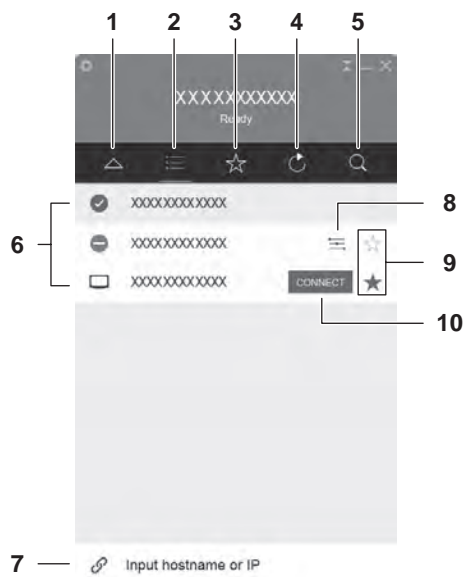
1. Click “Pause” (.
2. To resume the display, click “Play” (.


■ 4-screen display

1. Click “Split Screen” (.
2. Select the display location.

: Full-screen display / : Upper left display / : Upper right display / : Lower left display / : Lower right display

■ Connection software screen

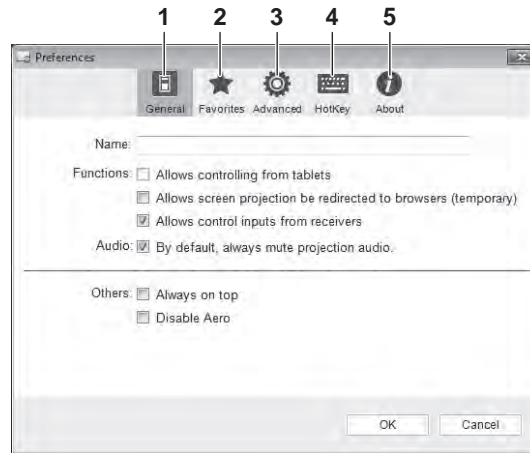


1.  Return to the operation screen.
2. Wireless controller list
The wireless controllers (host name) found by the computer are displayed.
3. Favorites
Wireless controllers (host name) that have been saved as favorites are displayed.
4. Refresh
Refresh the list.
5. Search
Search for a specified wireless controller in the list.
6. List
The list of wireless controllers or favorites are displayed.
 - : Currently connected wireless controller
 - : Break the connection with the wireless controller.
(Appears when you hover over the connected wireless controller with the mouse cursor.)
7. Host name / IP address input
You can directly enter the host name or IP address of the desired wireless controller to connect the computer to that wireless controller.
8. Settings
Start the web browser and configure wireless controller settings. (See page 27.)
(Appears when you hover with the mouse cursor.)
9. ☆ / ★
To add a wireless controller to the favorites list, touch ☆. (Appears as ★)
To delete a wireless controller from the favorites list, touch ★. (Appears as ☆)
10. CONNECT
Connect the computer to the wireless controller.
(Appears when you hover with the mouse cursor.)

■ Preferences

Configure connection software settings.

1. Click “Menu” (⚙️) in the connection software.
2. Click “Preferences”.



1. General

Name	Set the computer name used for connection to the wireless controller. Characters other than half-width alphanumeric characters may not display correctly.
Allows controlling from tablets	Select this to display the computer in the list screen of MirrorOp Receiver by Awind, Inc.
Allows screen projection be redirected to browsers (temporary)	Select to display the screen on another computer using the WebSlides function.
Allows control inputs from receivers	Select to enable operation of the computer displayed by wireless by touching the monitor.
By default, always mute projection audio.	Select to automatically mute the audio when displaying a computer screen on the monitor.
Always On Top	Select to always move the connection software to the front.
Disable Aero	Select to disable Windows Aero.

2. Favorites

Default List	Set the default display for the connection software wireless controller list.
Import	Save a wireless controller that has been added to the favorites.
Export	Retrieve a wireless controller that has been saved.

3. Advanced

Mode	Set whether the desktop is duplicated or extended when displaying a computer screen on the monitor.
Quality	Set the image quality of the computer screen displayed on the monitor. When “Best” is set, more time may be required for processing.
Resolution Setting	Set the resolution of the computer screen displayed on the monitor. Always ask: Confirm the resolution each time a screen is displayed. Always change: Automatically change the resolution. Never ask: Display at the resolution of the computer desktop.
Aspect Ratio	Set whether the aspect ratio is adjusted to the screen or remains unchanged when a computer screen displayed on the monitor.
Encode Format	Set the data format used to send screen data. Normally “Automatic” should be used. “JPEG” is a high quality format, but increases the load on the network. “H.264” reduces the data size and lightens the load on the network.

4. HotKey

You can assign connection software actions to keyboard keys.


5. About

Display the version and license information of the connection software.

■ Saving the displayed screen as an image file

Save the currently displayed screen as an image file (JPEG).

An image file can only be saved from the computer that is displayed. Perform these steps from the computer that is being displayed.

1. Click “Menu” () in the connection software.
2. Click “Capture & Save screen”.
3. Specify a file name and save location, and click “Save”.

Controlling the computer whose screen is displayed (Conference control mode)

When multiple computers are connected to the wireless controller, the computer whose screen is displayed and the display position can be controlled from one of the computers (Conference admin).

Perform these steps from the conference admin's computer.

1. Start the computer's web browser.
2. Enter the IP address shown on the home screen of Wireless mode in the address bar of the web browser.

The settings screen appears.

3. Click "Conference Control".

Enter the password and click "Login".
The default password is "moderator".

4. Select the "Allow control from this page only." checkbox.

You will only be able to control the display of computers whose checkboxes are selected.



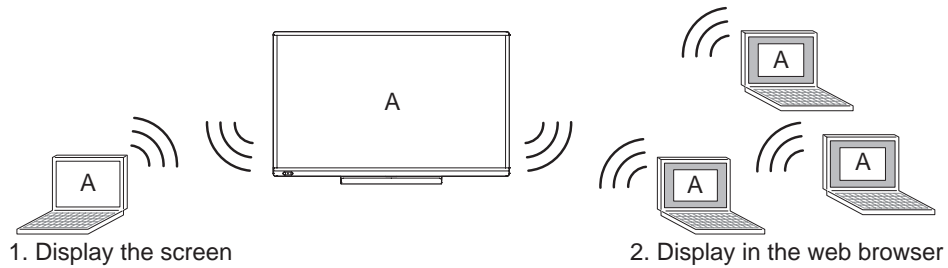
1. Computers connected to the wireless controller are shown.
2. The IP addresses of the computers connected to the wireless controller are shown.
3. Control display of each computer.

- : Full screen display
- : Display in upper left screen of four-screen display
- : Display in upper right screen of four-screen display
- : Display in lower left screen of four-screen display
- : Display in lower right screen of four-screen display
- : Stop display
- : Break connection

4. Change the input mode of the monitor.
5. Change the PIP mode of the monitor.
5. When you are ready to exit, remove the checkmark from "Allow control from this page only.", and click "Logout".

Displaying the image in a web browser (WebSlides)

You can share a screen displayed in Wireless mode, and display the screen in the web browser on your computer.



TIPS

- “Allows screen projection be redirected to browsers (temporary)” must be selected in advance in the connection software settings of the computer whose screen is displayed (1. above). (See page 19.)
- A security warning may appear in some browsers. Follow the instructions in the browser and continue the procedure.

■ Viewing the screen from a web browser

Perform these steps on the computer whose screen you want to display (2. above).

1. **Start the computer’s web browser.**
2. **Enter the IP address shown on the home screen of Wireless mode in the address bar of the web browser.**
The settings screen appears.
3. **Click “WebSlides”.**
The screen displayed on the monitor is displayed.

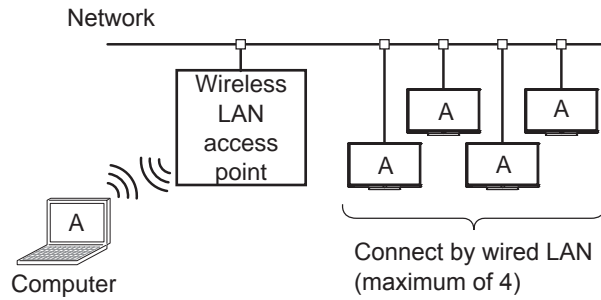
■ WebSlides screen



1. Shows the screen that is displayed on the monitor.
2. Return to the settings screen.
3. Pause display of the screen. Even if the monitor display changes, the browser display will not change.
4. Save the currently displayed screen as an image file (JPEG).
5. Display at the screen size displayed on the monitor.
6. Fit the displayed screen to the size of the browser window.
7. Refresh the screen display.
8. Set the display refresh interval.

Displaying a computer screen on multiple monitors

You can display a computer screen on multiple wireless controllers on the same network. (Maximum of 4)
We recommend that the wireless controllers be connected by wired LAN.



Perform these steps from the wireless controller list in the connection software. (See page 18.)

1. Select the wireless controller to be connected, and click “CONNECT”.

Do this for each wireless controller that you want to connect.

2. Click “Play” (▶).

Actions when a screen is displayed

Using a touch pen, you can write in the screen.

TIPS

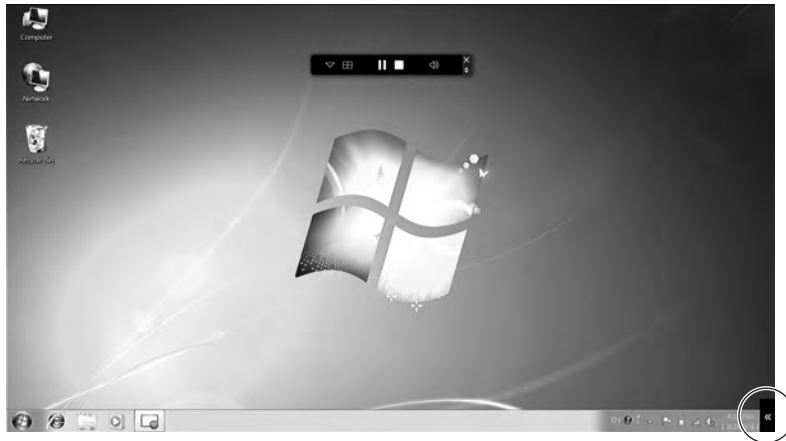
- The touch operation mode varies depending on the connection software starting method and OS.

Starting method	OS	Touch Operation Mode
Start after installing	Windows 8 / 8.1 / 10	Multi-Touch Mode
	Windows 7 / Mac OS	Mouse Mode
Start from wireless token	Windows 7 / 8 / 8.1 / 10	Mouse Mode
Application downloaded from wireless controller	Mac OS	

- Incorrect operation may sometimes occur even when operating the computer by touching the monitor.
- The function buttons on the touch pen cannot be used. Multiple touch pens cannot be used at the same time.

Drawing on the screen with a pen (Direct Drawing)

1. Touch “Toolbar” (⏪).



Display the toolbar.



1. Pen
Draw a line on the screen.
Touch while “Pen” is selected to change the thickness or color.
2. Mouse
Activate mouse mode. You can operate the displayed computer by touch operation.
3. Eraser
Touch on handwritten data to erase the data.
Touch while “Eraser” is selected to change the size of the eraser.
4. Erase all
Erase all handwritten data.
5. Save
Save the currently displayed screen as an image file (JPEG).
6. Lock
Touch to prevent the screen display from being changed from other computers.
Touch again to unlock.
7. Home
Return to the home screen in Wireless mode.

TIPS

- You can erase handwritten data with the eraser.
Touch the screen with the eraser, and after the cursor changes to the eraser, move the eraser.
Touch on handwritten data to erase the data.

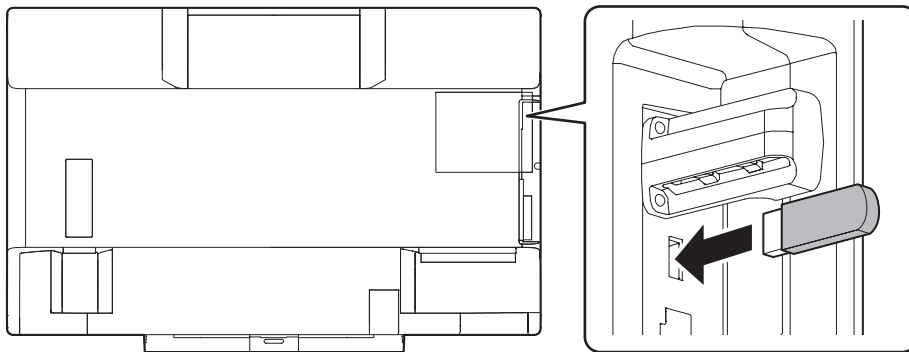
! Caution

- When the power is turned off, handwritten data is lost. Always save any handwritten data you need before turning off the power.
- Handwritten data will be lost if the display changes, such as when you display another computer or change to split screen display.
You can lock the screen to prevent the display from changing.

Saving the screen as an image file

You can save the screen and handwritten data displayed on the monitor as an image file (JPEG).
You can save the image to the computer being displayed or to a USB flash drive connected to the wireless controller.

1. When saving the image to a USB flash drive, connect the USB flash drive to the wireless controller.



2. Touch “Save” (📁) on the toolbar.

When saving to a computer: Specify the save location and file name.

When saving to a USB flash drive: The file is saved with the file name “B0000001.jpg” in the “Annotation” folder of the USB flash drive.

(The number in the file name is successively incremented up to 9999999, after which it returns to 0000001.)

! Caution

- Set the correct date and time in the monitor. (See operation manual.)
The monitor date and time is used for the file time stamp.

Exiting

■ Exiting the connection software

1. Click “Close” (.

The connection software closes.

Settings

Configure wireless controller settings.

TIPS

- A security warning may appear in some browsers. Follow the instructions in the browser and continue the procedure.

1. Start the computer's web browser.
2. Enter the IP address shown on the home screen of Wireless mode in the address bar of the web browser. The settings screen appears.
3. When you have completed the settings, click "Apply".

■ Download

Quick Executable application (Guest)	Download the connection software in an executable state. Installation is not necessary.
Installer	Download the installer for the connection software. After downloading the installer to your computer, install the software.
Download Device Profile	Download the profile for connection of the wireless controller. If you have installed and are using the connection software, double-click the profile to connect it to the downloaded wireless controller.

■ Conference Control

The password entry screen appears.

Enter the password for Conference Control and click "Login". (The default password is "moderator".)

Display Control	Input	You can change the input mode of the monitor. After changing the mode, click "Apply".
	PIP	You can change the PIP mode of the monitor. After changing the mode, click "Apply".
Allow control from this page only.		Use in conference control mode. (See page 21.)

■ Admin

The password entry screen appears.

Enter the password for Admin and click "Login". (The default password is "admin".)

After changing the setting, click "Apply".

System Status		The system state is displayed. You can check the MAC address.
Device Setup	Device Setup	<p>Code</p> <p>Set the passcode used to connect to the wireless controller.</p> <p>Disable: Connect to the wireless controller without entering a passcode.</p> <p>Random: The passcode changes.</p> <p>Use the following code: Fix to the numeric value entered for the passcode.</p>
Network Setup	Host Name and Domain Name	<p>Host Name</p> <p>Set the host name of the wireless controller. To use the same name as the SSID, select the "Same as WLAN Network name" checkbox.</p> <p>Domain Name</p> <p>Set the domain name of the wireless controller.</p>
	IP Setup	<p>Obtain an IP address automatically</p> <p>If the network has a DHCP server, set the IP address, subnet mask, default gateway, and DNS Server automatically.</p> <p>Use the following IP address</p> <p>Set the IP address, subnet mask, default gateway, and DNS Server manually.</p>

Network Setup	DHCP Server Setup	<p>Auto Use the DHCP server function of the wireless controller. Start IP / End IP: Specify the range of IP addresses assigned to clients by the wireless controller's DHCP server. Subnet Mask / Default Gateway / DNS Server: Specify the addresses that the wireless controller's DHCP server sets in the client.</p> <p>Disable Do not use the DHCP server function of the wireless controller.</p>
	GateKeeper	<p>You can limit access to the wired LAN from computers connected to the wireless controller by wireless LAN. All Pass: Allow all access to the wired LAN. All Blocked: Block all access to the wired LAN. Internet Only: Only allow access by web browser.</p>
WLAN Setup	Wireless LAN	Set whether the wireless LAN function is used.
	Mode	<p>Access Point: Use the wireless controller as an access point. Station: Use the wireless controller as a client. AP and Station: Use the wireless controller as both an access point and a client.</p>
	Access Point	<p>Set this when the "Mode" is "Access Point" or "AP and Station".</p> <p>SSID Set the SSID of the wireless controller.</p> <p>SSID Broadcast Set whether SSID broadcast is used.</p> <p>Band Set the frequency bands used for wireless LAN. * 2.4 GHz and 5 GHz cannot be used simultaneously. * When 5 GHz is selected, 2.4 GHz devices will not be able to connect.</p> <p>802.11mode Change the communication frequency bands and the communication speed.</p> <p>Channel Set the channels that are used for wireless LAN.</p> <p>Encryption Set the encryption method for wireless LAN encryption.</p> <p>Key Set a key that is appropriate for the wireless LAN encryption method.</p> <p>Channel Bandwidth Set the channel bandwidth.</p>
	Station	<p>Set this when the "Mode" is "Station" or "AP and Station".</p> <p>Connect to Existing AP Enter the SSID of the wireless LAN access point.</p> <p>Encryption Set the encryption method for wireless LAN access point.</p> <p>Key Set the encryption key that is appropriate for the wireless LAN access point.</p>

SNMP Setup	SNMP V3	<p><u>Enable / Disable</u> Set whether SNMP is enabled or disabled.</p> <p><u>Username</u> Set the user name for SNMP.</p> <p><u>Auth Password (MD5) / Priv Password (DES)</u> Set each password.</p> <p><u>Trap Destination</u> Set the trap destination.</p>
OSD Setup	Display Option	<p><u>Device Information / User-List / Connect info</u> Set whether each type of information is shown in the screen.</p> <p><u>Font color / Font Size</u> Set the color and size of the screen font.</p> <p><u>Screen Saver Settings</u> Set whether a screen saver is used. If used, set the time until the screen saver activates.</p>
	Projection Option	<p><u>OSD Menu Button</u> Set whether the toolbar is displayed.</p>
WebSlides Setup	Auto Refresh Interval (second)	Set the refresh interval for the screen displayed in the web browser.
	Access Password Control	Set the password for display of the screen in a web browser. Disable: Do not use a password. Use the same password as "Code": Use the same password as the passcord. Use the following Code: Use the entered number as the password.
Change Passwords	Conference Control	Change the password for Conference Control.
	Admin	Change the password for Admin.
Reset to Default		Return the wireless controller settings to their factory default state.
Firmware Upgrade	System Configuration	Export: You can save the settings. Import: You can retrieve saved settings.
	Firmware Upgrade	Update the firmware of the wireless controller.
Reboot System		Restart the wireless controller.

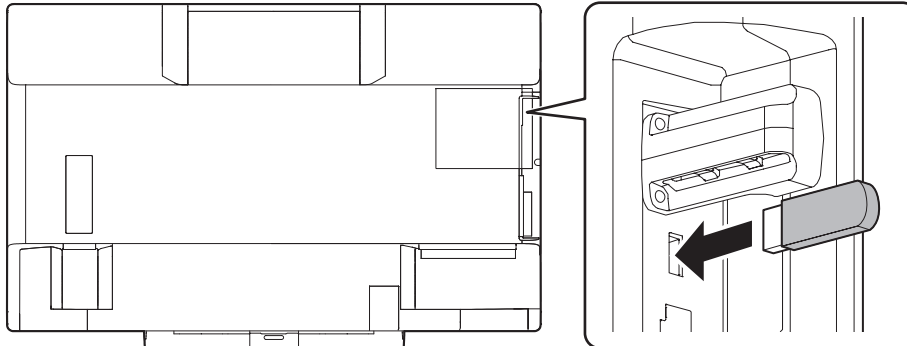
Starting from a commercially available USB flash drive

You can enable starting of the connection software from a commercially available USB flash drive.

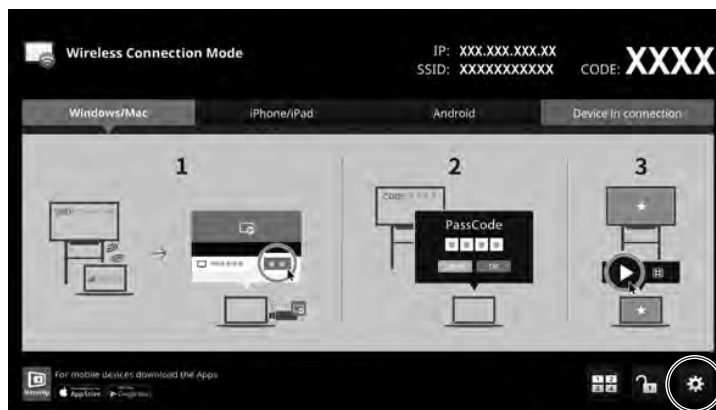
USB flash drives that can be used:

- USB flash drives indicated on page 5 with a capacity of 128 MB or more.
- Use a USB flash drive in which nothing is saved.

1. Insert the USB flash drive into the USB port of the wireless controller.



2. Touch “Setup” (⚙️) in the home screen of Wireless mode.



3. Touch “Make Token”.

Making starts.

4. When the making completed message appears, remove the USB flash drive.

! Caution

- Do not remove the USB flash drive while making is in progress.
Do not turn off the power of the monitor.
- Always create this on the wireless controller.
Incorrect operation will result if you make from the wireless token to the USB flash drive using your computer.

TIPS

- When the USB flash drive connection software is started, the software will automatically connect to the wireless controller on which the token was created. (The software will also connect automatically over wireless LAN.)

Uninstalling the connection software

■ Windows

! Caution

- This can only be done by a user with administrator authority.

1. **Exit all running software applications.**
2. **Select “Control Panel” from the “Start” menu.**
3. **Click “Uninstall a program”.**
 - If you are using icon view, click “Programs and Features”.
4. **Select “MirrorOp for SHARP” and click “Uninstall”.**
 - Follow the on-screen instructions.
 - When the “User Account Control” screen appears, click “Yes” (or “Allow”).

This completes the uninstallation.

■ Mac

! Caution

- To uninstall, an administrator name (user name) and password are required.

1. **Exit all running software applications.**
2. **Move “SHMirrorOp_Mac.app” from the “Applications” folder to the recycle bin.**

This completes the uninstallation.

Using as a whiteboard (Direct Drawing)

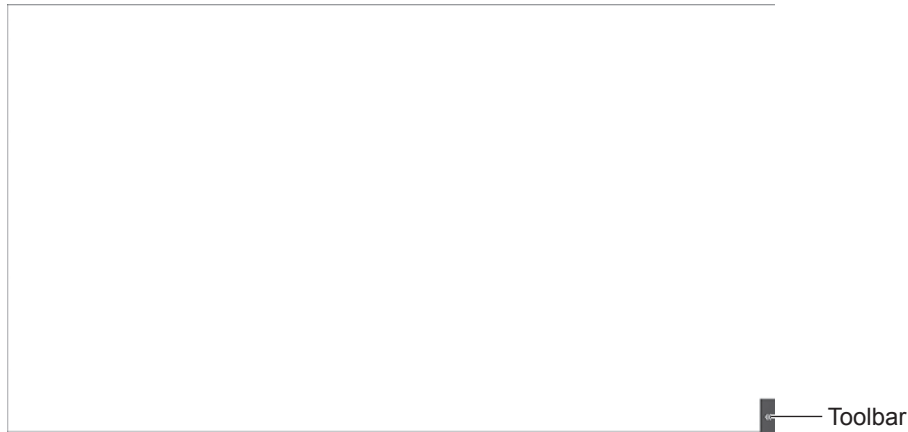
You can show a white background and use the monitor as a whiteboard.

TIPS

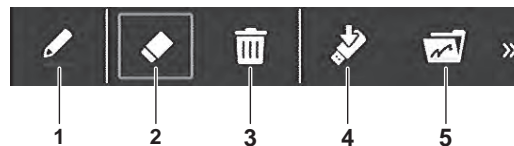
- The function buttons on the touch pen cannot be used. Multiple touch pens cannot be used at the same time.

1. Turn on the monitor power.
2. Change the input mode to “Direct Drawing” with the input mode selection.

The whiteboard screen appears.



Touch “Toolbar” (◀) to display the toolbar.



1. Pen
Draw a line on the screen.
Touch while “Pen” is selected to change the thickness or color.
2. Eraser
Touch on handwritten data to erase the data.
Touch while “Eraser” is selected to change the size of the eraser.
3. Erase all
Erase all handwritten data.
4. Save
Save the currently displayed screen as an image file (JPEG).
5. Open
Display a saved image.
This appears when a USB flash drive is connected.

TIPS

- You can erase handwritten data with the eraser.
Touch the screen with the eraser, and after the cursor changes to the eraser, move the eraser.
Touch on handwritten data to erase the data.

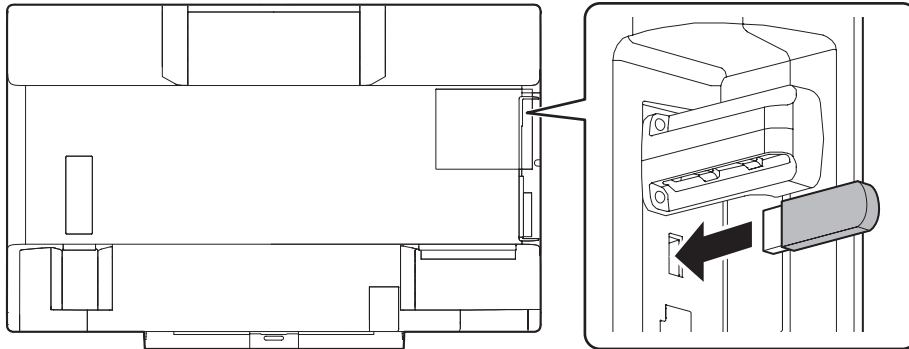
! Caution

- When the power is turned off, handwritten data is lost. Always save any handwritten data you need before turning off the power.

■ Saving the screen in whiteboard as an image

The handwritten data in Direct Drawing mode can be saved as an image file (JPEG) in a USB flash drive connected to the wireless controller.

1. Connect the USB flash drive to the wireless controller.



2. Touch “Save” (📁) on the toolbar.

The file is saved with the file name “B0000001.jpg” in the “Annotation” folder of the USB flash drive.
(The number in the file name is successively incremented up to 9999999, after which it returns to 0000001.)

! Caution

- Set the correct date and time in the monitor. (See operation manual.)
The monitor date and time is used for the file time stamp.

■ Displaying a saved image

! Caution

- If data already exists in Direct Drawing mode, the original data will be lost when the new image is displayed.

1. Connect the USB flash drive to the wireless controller. (See the description above.)
2. Touch “Open” (🖼️) on the toolbar.
3. Touch the image to be displayed.

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Federal Communication Commission Interference Statement

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

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device is restricted to indoor use.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This device is restricted to indoor use.

High Power Radars: High power radars are allocated as primary users (meaning they have priority) in the 5250MHz to 5350MHz and 5650MHz to 5850MHz bands. These radars could cause interference and/or damage to Wireless LAN devices used in Canada.

Les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250 - 5350 MHz et 5650 - 5850 MHz. Ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

IMPORTANT NOTE:

IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance **20cm** between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

CAN ICES-3 (B)/NMB-3(B)

The Country Code Selection feature is disabled for products marketed in the US/Canada