



V-60HD RCS is a program for remote control of the V-60HD.  
 \* The program runs on both Windows and Mac.

## Dedicated Remote Control Software **V-60HD RCS**

Owner's Manual Version 3.0 and later

V-60HD RCS is supported in V-60HD program version 1.1 and later. You must update the following two programs to the latest version before using this.

- System program
- NPU program

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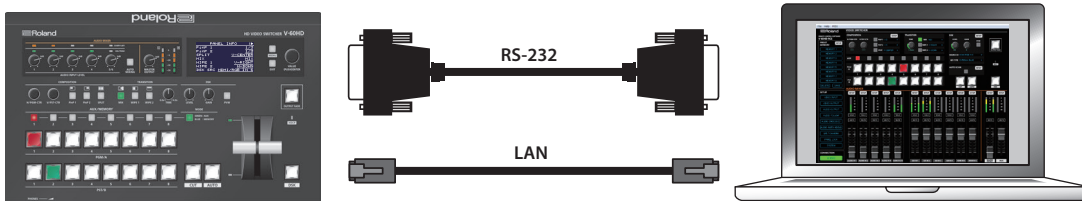
# Introduction

## About V-60HD RCS

V-60HD RCS is a program for remotely operating the V-60HD connected to a computer over a LAN or via RS-232.

From V-60HD RCS, you can perform panel operations and make menu settings on the V-60HD. You can also save the settings of the connected V-60HD to the computer as a file (\*1), and save settings created in V-60HD RCS to the V-60HD.

Performing operations in V-60HD RCS is possible even when no connection is made to the V-60HD (offline) (\*2). This means that at times such as during prior planning for system design, you can create settings using only V-60HD RCS and save the created settings to the on-site V-60HD later.



(\*1) Only current setting values are saved in the file. Preset memories are not saved.

(\*2) Items that can be manipulated while offline are limited.

## System Requirements

Operating System	Windows	Windows 7 Service Pack 1 or later
	Mac	macOS 10.12 or later
CPU	Windows	Intel Core 2 Duo or higher, or compatible processor * No assurance is made regarding the compatibility of compatible processors themselves.
	Mac	Intel Processor
RAM	2 GB or more	
Required Disk Space	100 MB or more	
Graphics	1,280 x 1,024 resolution or higher	
	Full Color (24-bit) or higher	
Other Matters	Connection to the V-60HD requires a network environment or RS-232 interface.	

\* V-60HD RCS is supported in V-60HD program version 1.1 and later. You must update the following two programs to the latest version before using this.

- System program
- NPU program

\* Operation of V-60HD RCS on a standard computer that satisfies the conditions just described has been confirmed, but all operation under these conditions is not assured. Please be aware that even under identical conditions, computer-specific differences in design specifications or usage environment might result in differences in processing capacity.

## Installing/Uninstalling V-60HD RCS

V-60HD RCS is available for download from the Roland website (<https://proav.roland.com/>).

### Installing

#### Windows

**1. Right-click the downloaded compressed file, then click “Expand All.”**

The setup program (Roland\_V-60HD\_RCS\_Installer.exe) is expanded.

**2. Double-click “Roland\_V-60HD\_RCS\_Installer.exe” to run it.**

**3. Follow the instructions in the setup program to install.**

\* If a User Account Control prompt appears, click the [OK] button.

#### Mac

**1. Double-click the downloaded compressed file.**

The disk-image file (Roland\_V-60HD\_RCS(.dmg)) is expanded.

\* Depending on your computing setup, the file might be expanded automatically when downloaded.

**2. Double-click “Roland\_V-60HD\_RCS(.dmg)”**

The “V-60HD RCS” disk-image volume is mounted.

**3. Drag the “V-60HDRCS” icon from inside the mounted volume, and drop it onto the alias of the application folder.**

**4. Eject the “V-60HD RCS” disk-image volume.**

### Uninstalling

#### Windows

**1. Working in sequence, click the [  (Start)] button → “Settings” (gear icon) → “Apps.”**

**2. Click “Roland V-60HD RCS,” then click the [Uninstall] button.**

**3. Follow the on-screen instructions to uninstall V-60HD RCS.**

\* If a User Account Control prompt appears, click the [Continue] button.

#### Mac

**1. Drag the “V-60HDRCS” icon from the application folder to the Trash.**

# Connection Using a LAN

## Connection Using the CONTROL Port (LAN)

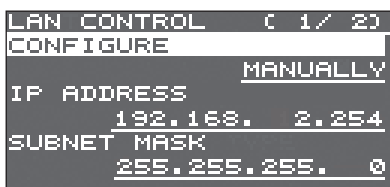
- Using a LAN cable, connect the CONTROL port (LAN) on the V-60HD and the computer.



### Communication standards

Port	CONTROL port (LAN)
Protocol	TCP
Port number	8023

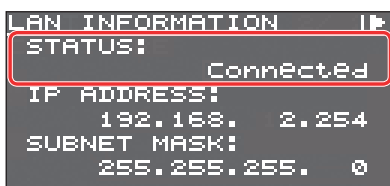
- Turn on the power to the V-60HD.
- On the V-60HD select [MENU] button → “LAN CONTROL,” then make the settings as follows.



Menu item	Setting
CONFIGURE	Set to “MANUALLY” (manual settings).
IP ADDRESS	This sets the IP address. Set this in accordance with the connected network.
SUBNET MASK	This sets the subnet mask. Set this in accordance with the connected network.

- Start the computer.
- Make network settings as described in the section “Making the network settings on the computer.”
- On the V-60HD, press [MENU] button → “LAN CONTROL” → “INFORMATION” → [VALUE] knob.

The LAN INFORMATION screen appears.

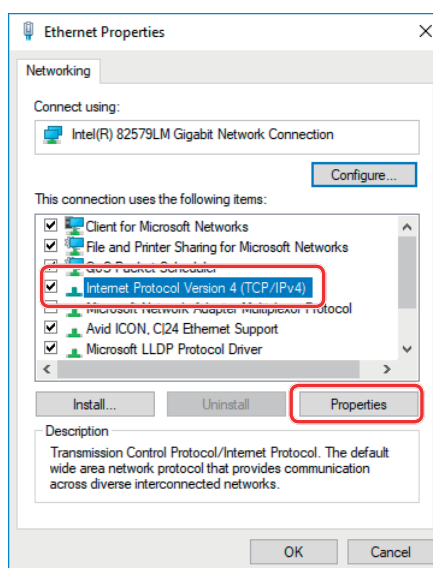


When “STATUS” indicates “Connected,” the connection settings are complete.

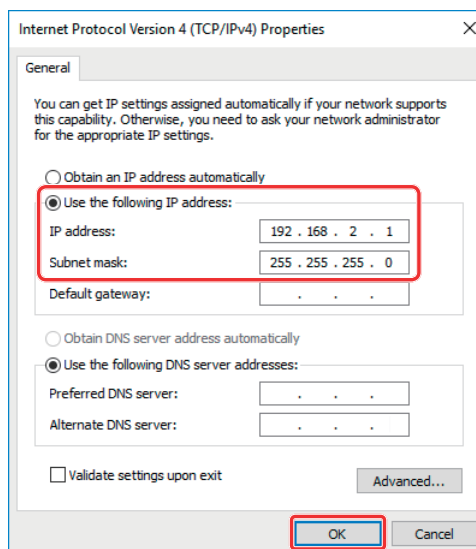
## Making the network settings on the computer

### Windows

- Working in sequence, click the [ Windows (Start) ] button → “Settings” (gear icon).
- Click “Network and Internet.”
- Click “Change Adapter Options.”
- Right-click the network connection you’re using, then click “Properties.”
- Select “Internet Protocol Version 4 (TCP/IPv4)” and click the [Properties] button.



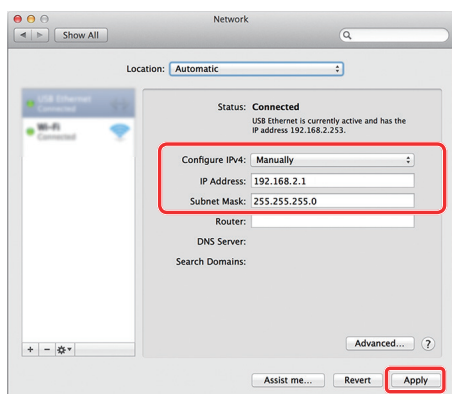
- Select “Use the following IP address,” set the values for the IP address and subnet mask, then click the [OK] button.



Setting item	Setting
IP address	Set a value that does not conflict with the IP address of any other device connected to the network. Set this in accordance with the connected network.
Subnet mask	This sets the subnet mask. Set this in accordance with the connected network.

## Mac

1. Display the Apple menu → “System Preferences” → “Network.”
2. From the list on the left, select the network connection service you’re using.
3. Set the values for the parameters shown below, then click the [Apply] button.



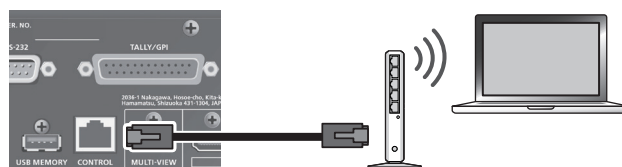
Setting item	Setting
Configure IPv4	Set to “Manually.”
IP Address	Set a value that does not conflict with the IP address of any other device connected to the network. Set this in accordance with the connected network.
Subnet Mask	This sets the subnet mask. Set this in accordance with the connected network.

## Connecting via a Wi-Fi Router

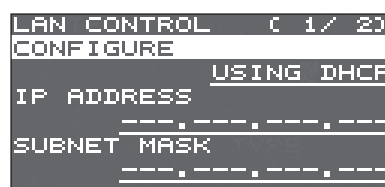
You connect the V-60HD and a Wi-Fi router using a LAN cable, and make a wireless connection to the computer via the Wi-Fi router.

\* For details on how to connect the wireless LAN (Wi-Fi), refer to the manual of the device that you’re using.

1. Using a LAN cable, connect the CONTROL port (LAN) on the V-60HD to the Wi-Fi router.



2. Turn on the power to the V-60HD.
3. From the V-60HD’s [MENU] button → “LAN CONTROL” → set “CONFIGURE” to “USING DHCP”

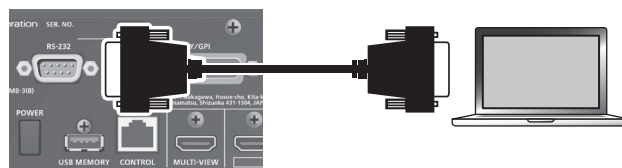


4. Make the connection between the computer and the Wi-Fi router.

For more information on how to make connections, refer to the respective documentation for the computer and the Wi-Fi router you’re using.

## Connection Using RS-232

1. Using an RS-232 cable, connect the RS-232 connector on the V-60HD to the computer.



### Communication standards


Communication method	Synchronous (asynchronous), full-duplex
Communication speed	9,600 bps/ 38,400 bps
Parity	none
Data length	8 bits
Stop bit	1 bit
Code set	ASCII
Flow control	XON/XOFF

2. Turn on the power to the V-60HD.
3. Start the computer.

# Starting/Quitting V-60HD RCS

## Starting

### 1. Windows

Working in sequence, click the [  (Start) ] button → “All Apps” → “Roland V-60HD RCS” → “V-60HD RCS.”

V-60HD RCS starts and the V-60HD RCS window appears.

### Mac

Double-click the V-60HDRCS(.app) icon.

V-60HD RCS starts and the V-60HD RCS window appears.

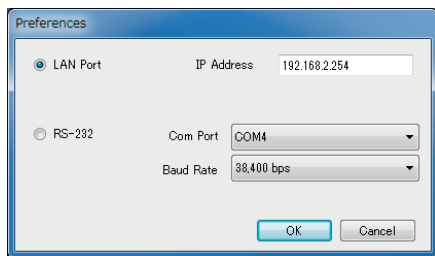


V-60HDRCS

### 2. Select the port on the computer where you're using V-60HD RCS.

Select the “File” menu (Windows)/“V-60HD RCS” menu (Mac) → “Preferences” to display the Preferences window.

Select the port, then click the [OK] button.



#### LAN Port:

Select this when using the CONTROL port (LAN) to make the connection.

IP Address: Enter the same value as the IP ADDRESS shown in the V-60HD's [MENU] button → “LAN CONTROL” → “INFORMATION.”

#### RS-232:

Select this when using the RS-232 connector to make the connection.

Com Port: From the drop-down list, select the port where the V-60HD is connected.

Baud Rate: This sets the baud rate (communication speed).

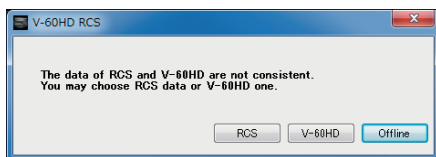
### 3. Click the [V-60HD] button to switch between online and offline.

For details on online/offline, refer to “About the Operation Mode” (p. 7).



### If V-60HD RCS and the V-60HD have different settings

If V-60HD RCS and the V-60HD have different settings when the system is switched to online mode, a message dialog box appears, asking which settings you want to enable.





Button	Explanation
[Offline] button	Puts the system offline. Communication between the V-60HD and V-60HD RCS is disconnected.
[V-60HD] button	The settings of the V-60HD are enabled. This loads the current settings on the V-60HD into V-60HD RCS.
[RCS] button	The settings of V-60HD RCS are enabled. This sends the settings in V-60HD RCS to the V-60HD, overwriting the existing V-60HD settings. * The setting for the frame rate in V-60HD RCS is not sent to the V-60HD.

\* You can save the values set using V-60HD RCS to the computer as a file (\*.rcs) and load the configured state when needed. For details, refer to “Saving V-60HD RCS Settings as a File” (p. 18).

## About the Operation Mode

V-60HD RCS has two operation modes: “online” and “offline.”

Button	Operation mode	Explanation
	Online	You select this when performing real-time control of the V-60HD. No operation is possible if the computer and V-60HD are not connected.
	Offline	You select this at times such as during prior planning for system configuration. Operation is possible even if the computer and V-60HD are not connected. * Some functions, such as preset memory, cannot be operated.

## Quitting

### 1. Windows

In the V-60HD RCS window, click the [X (close)] button.

Alternatively, go to the “File” menu and select “Quit.”

V-60HD RCS will quit.

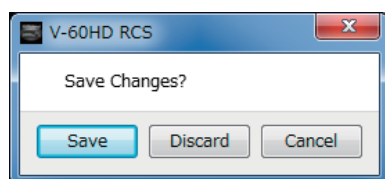
### Mac

In the V-60HD RCS window, click the [ⓧ (close)] button.

Alternatively, go to the “V-60HD RCS” menu and select “Quit V-60HD RCS.”

V-60HD RCS will quit.

### ◆ If Settings at Shutdown Have Not Been Saved in a File



You can take the values of settings made in V-60HD RCS and save them on the computer as a file (\*.rcs; p. 18). If the settings when you quit V-60HD RCS have not been saved in a file, a message dialog box asking whether you want to save the settings appears.

Windows	Mac	Explanation
[Save] button	[Save] button	The settings at shutdown are saved in the currently open file (*.rcs), overwriting any earlier settings, and V-60HD RCS ends. * If the target setting values have never been saved before, the Save V-60HD Data as window for entering a file name is displayed. This saves the setting values in a newly created file (*.rcs) of a different name.
[Discard] button	[Don't Save] button	V-60HD RCS ends without saving the settings at shutdown. <b>NOTE</b> Any changes made since the last time saved are all lost.
[Cancel] button	[Cancel] button	This cancels shutdown of V-60HD RCS.

# Panel Descriptions

For more information about menu items, go to the V-60HD Reference Manual and refer to “Menu List.”



No.	Name	Explanation	
1	PRESET MEMORY	* Operation is not possible when offline.	
		[SETUP] button	This displays PRESET MEMORY window.
		[MEMORY 1]–[MEMORY 8] buttons	These control the preset memory function. The currently selected MEMORY button lights up in blue. <b>Save:</b> Click the [SAVE] button and then click the MEMORY button for the number whose settings you want to save. Values in the preset memories are saved in the V-60HD. <b>Recall:</b> Click the MEMORY button for the number whose settings you want to recall. <b>Delete:</b> Click the [DELETE] button and then click the MEMORY button for the number whose settings you want to delete.
		[DELETE] button	<b>MEMO</b> MEMORY 1 * If the content of the currently selected preset memory is edited, an “*” symbol is shown on the MEMORY button.
2	SETUP	[VIDEO INPUT] button	This displays VIDEO INPUT window.
		[VIDEO OUTPUT] button	This displays VIDEO OUTPUT window.
		[AUDIO OUTPUT] button	This displays the OUTPUT ASSIGN window for AUDIO OUTPUT.
		[AUDIO FOLLOW] button	This displays AUDIO FOLLOW window.
		[AUDIO EMBEDDED] button	This displays AUDIO EMBEDDED window (p. 9).
		[AUDIO AUTO MIXING] button	This displays AUDIO AUTO MIXING window (p. 10).
		[GPI/CAMERA] button	This displays GPI/CAMERA CONTROL window.
3	CONNECTION	[SYSTEM] button	This displays SYSTEM window.
		[V-60HD] button	This switches V-60HD RCS online or offline (p. 6). When switched online, you can operate the V-60HD from V-60HD RCS.
4	VIDEO SWITCHER	This remotely controls the V-60HD’s operation panel.	
5	AUDIO MIXER	[SETUP] buttons	These display the input/output audio settings window. * For details on operating the EQ, COMP/GATE, and MB COMP graphs, refer to the box on the next page.
		Audio level meters	These display the volume levels of input/output.
		[SOLO] buttons	These turn the solo function on (lit blue) or off.
		[MUTE] buttons	These turn the Mute feature on (lit red) or off.
		Audio level faders	These adjust the volume level of input/output.

## AUDIO EMBEDDED window

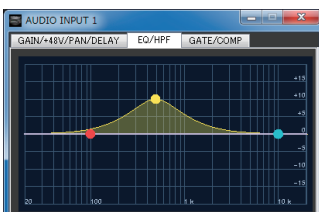
Click the [AUDIO EMBEDDED] button to access the AUDIO EMBEDDED window.



No.	Name	Explanation
1	Audio type select switches	These specify the audio type for the input audio that is sent to the SDI embedded audio channel. If this is "OFF," audio is not sent.
2	Output channel select switches	Audio containing channels 3–8 of the embedded audio is sent from the SDI OUT jacks that are set to "CH1–8."

In a settings window that appears when you click the AUDIO MIXER [SETUP] button, you can adjust the values of the settings by dragging the effect graph.

### EQ graph operations

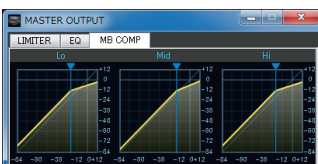
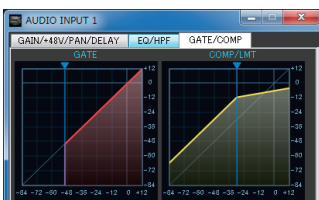


#### Points on the Graph


Dragging points changes the following values.

- EQ Hi/Mid/Lo: Drag the point vertically.
- EQ Hi/Mid/Lo FREQ: Drag the point horizontally.

### GATE/COMP and MB COMP graph operations



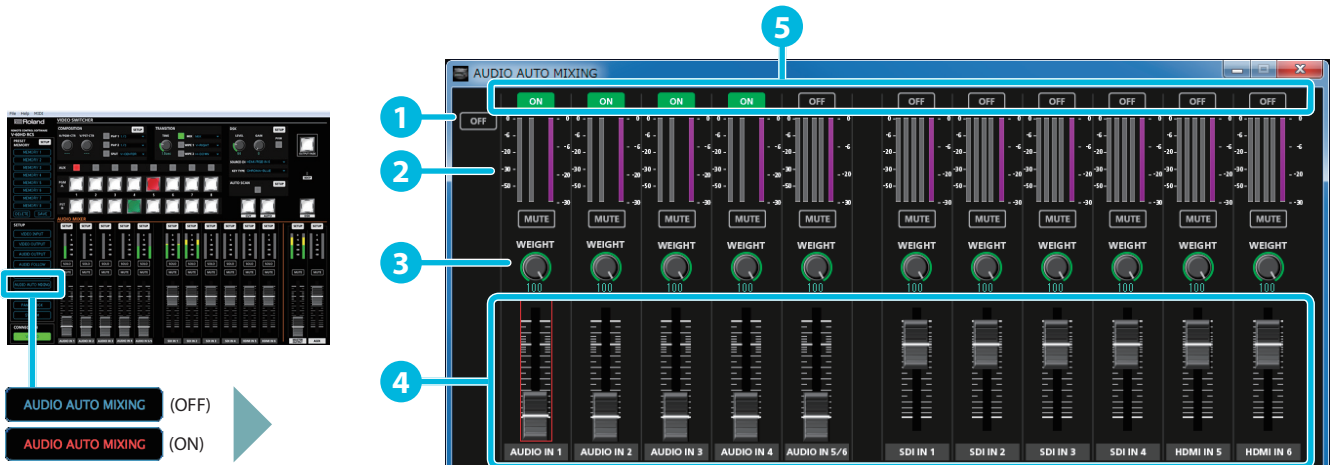
#### Graph Sliders

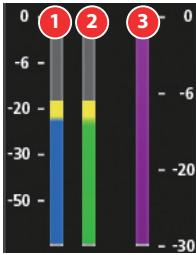
Dragging a slider (  ) horizontally changes the "THRESHOLD" value.

## AUDIO AUTO MIXING window

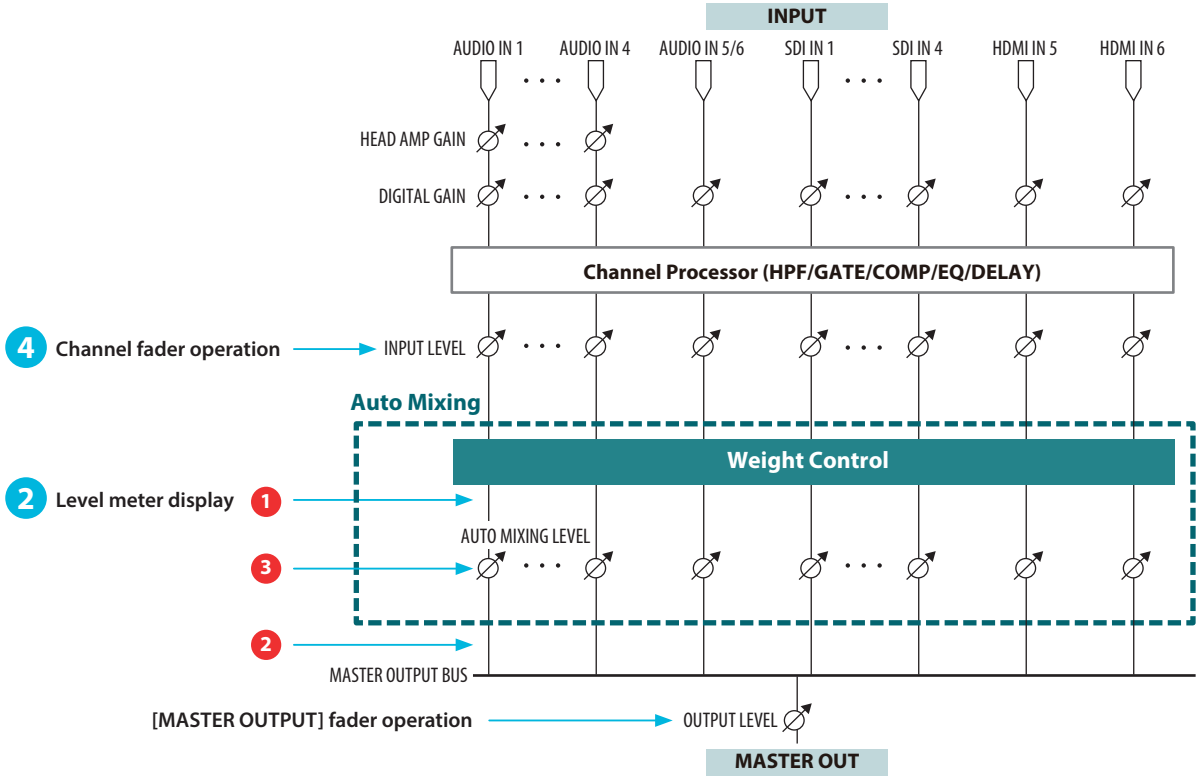
Click the [AUDIO AUTO MIXING] button to access the AUDIO AUTO MIXING window.

\* When the auto mixing function is on, the text of the [AUDIO AUTO MIXING] button is displayed in red.



No.	Name	Explanation
1	Auto Mixing switch	This switches the Auto Mixing feature on or off.
2	Level meters	 <ul style="list-style-type: none"> <li>1 These indicate the Auto Mixing input level. These are the levels after passing through weight control.</li> <li>2 These indicate the output level from Auto Mixing.</li> <li>3 These indicate the Auto Mixing level. These are the levels of the internal Auto Mixing faders operated by the mixer itself.</li> </ul>
3	Weight level knobs	These set the priority for volume-level distribution.
4	Channel faders	These adjust the volume of the inputs (AUDIO IN 1–5/6, SDI IN 1–4, HDMI IN 5–6).
5	Channel switches	These specify whether Auto Mixing is applied (ON) or not applied (OFF).

# Signal Flow

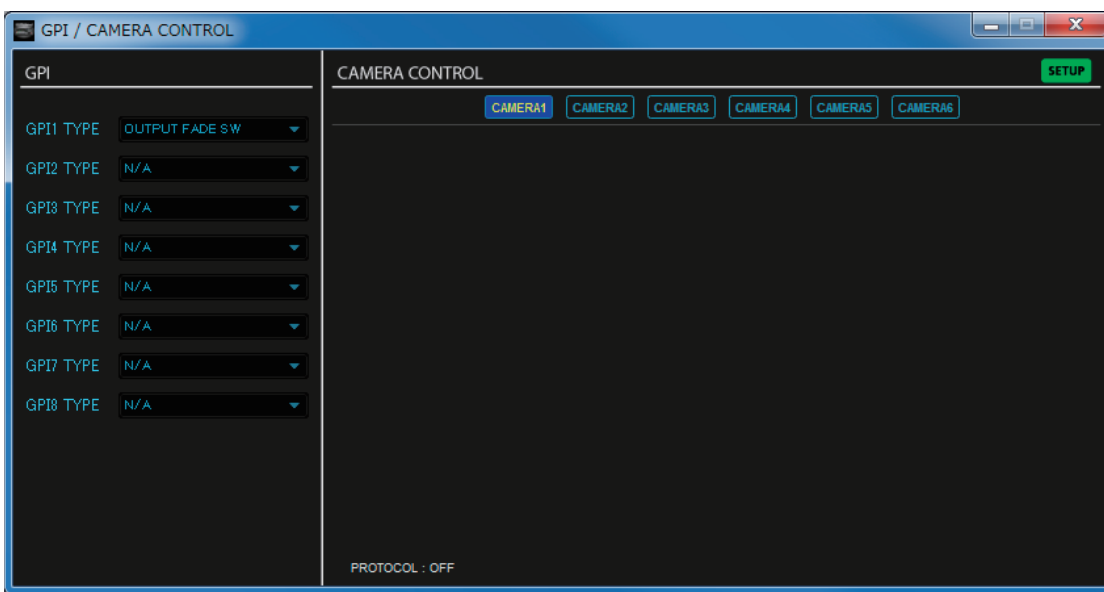


## GPI/CAMERA CONTROL window

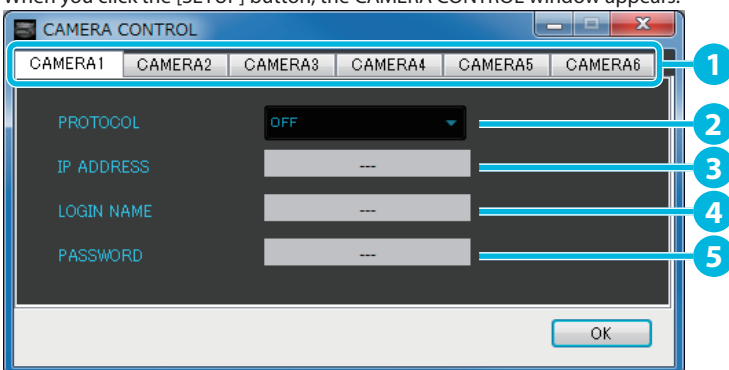
When you click the [GPI / CAMERA] button, the GPI/CAMERA CONTROL window appears.



GPI / CAMERA



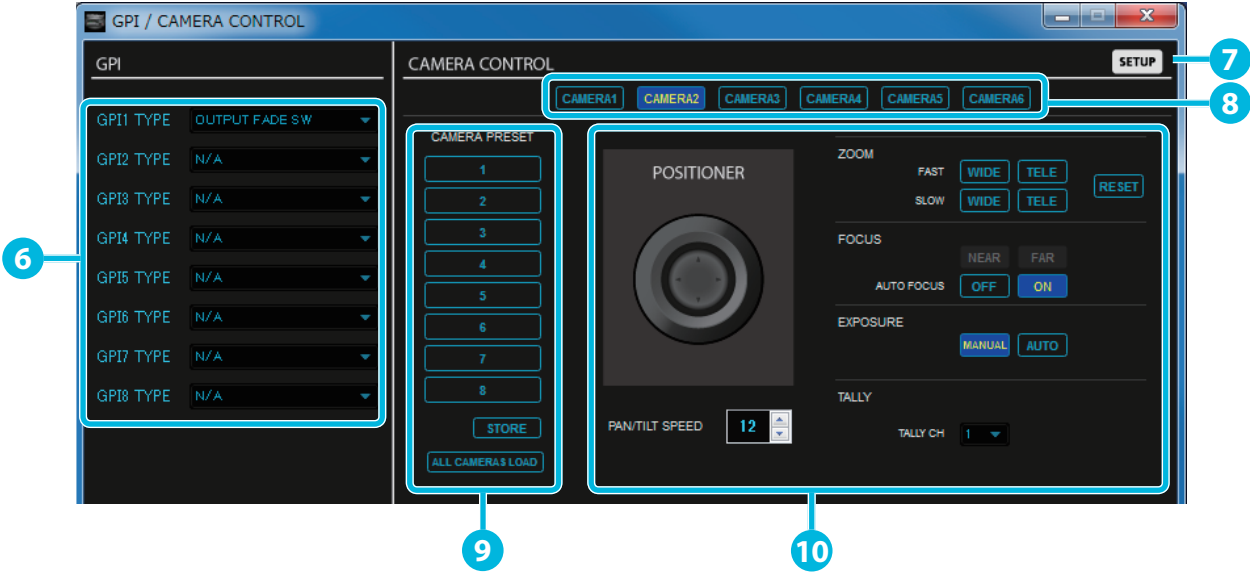
When you click the [SETUP] button, the CAMERA CONTROL window appears.



No.	Name	Explanation
1	ID assignments	Assign an ID to the camera that you want to register.
2	PROTOCOL	Select the protocol specified for the camera.
3	IP ADDRESS	Enter the IP address specified for the camera.
4	LOGIN NAME	Enter the log-in name specified for the camera. * This can be set only if the protocol is set to "jvc."
5	PASSWORD	Enter the password specified for the camera. * This can be set only if the protocol is set to "jvc."

GPI/CAMERA CONTROL window

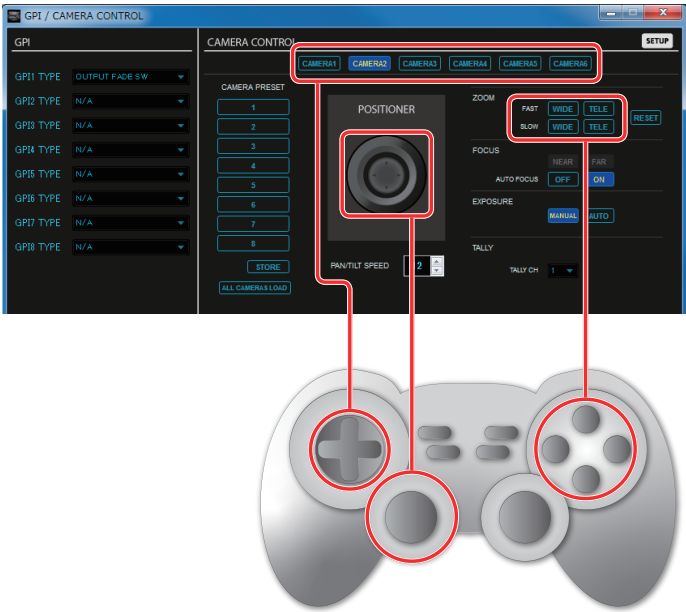
When the protocol is JVC, Panasonic, VISCA over IP, PTZOptics, or Avonic



No.	Name	Explanation
6	GPI1 TYPE–GPI8 TYPE	Specify the GPI TYPE.
7	[SETUP] button	Shows the CAMERA CONTROL window. To control a camera, first click this button and register the camera information.
8	Camera select	Selects the camera to be operated.
9	Preset memories	Save the remote camera's pan, zoom, focus, and tally settings, and recall them when needed. By turning the [ALL CAMERAS LOAD] button on and pressing one of the CAMERA PRESET [1]–[8] buttons, you can recall the settings that were saved for each of the cameras, not just one camera. Example: If you click the CAMERA PRESET [1] button, PRESET 1 is recalled for CAMERA 1–6 with a single click.
10	Remote camera on	Allows you to remotely control the camera. By clicking the [RESET] button you can return the settings to their default values.

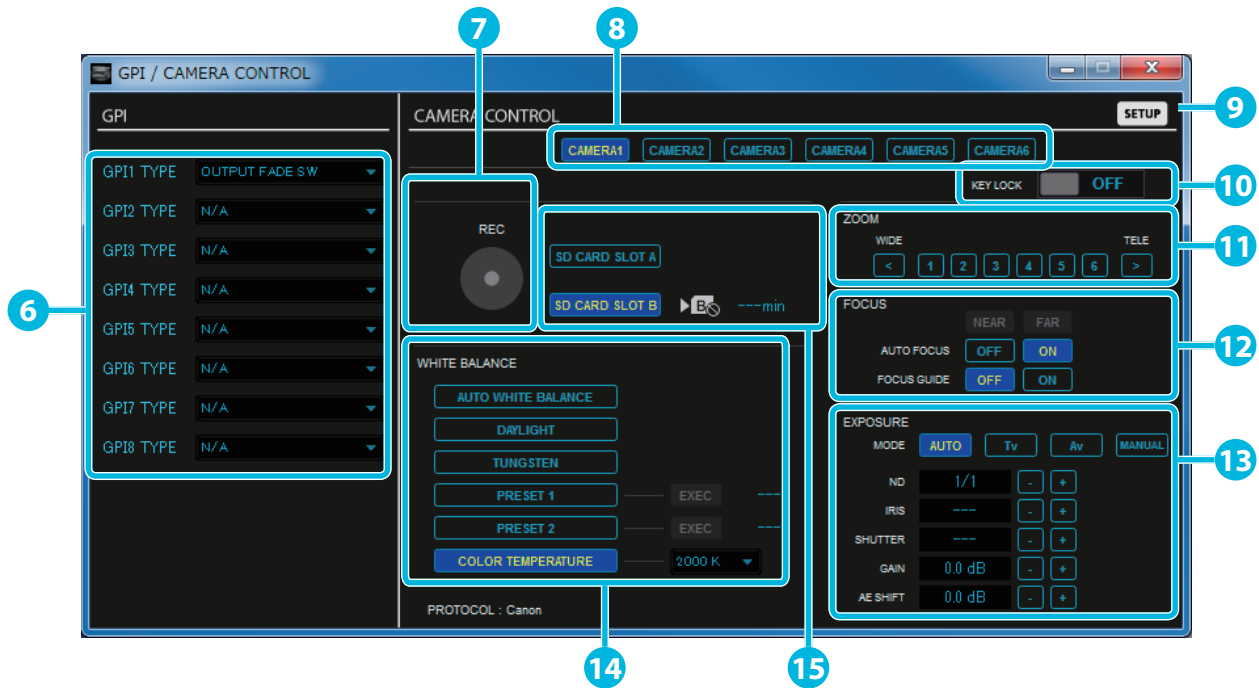
Game controller mapping

You can use a commercially available game controller connected to the computer to perform the following operations.



\* The location of the buttons mapped to ZOOM differs depending on the manufacturer of the controller.

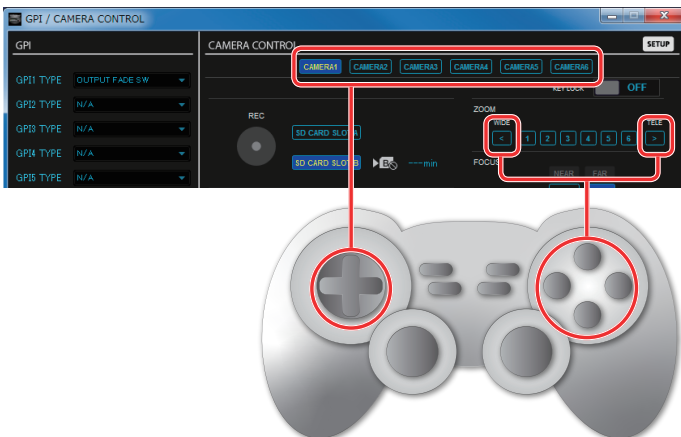
When the protocol is Canon



No.	Name	Explanation
6	GPI1 TYPE–GPI8 TYPE	Specify the GPI TYPE.
7	REC STATES	Starts/stops camera recording.
8	Camera select	Selects the camera to be operated.
9	[SETUP] button	Shows the CAMERA CONTROL window. To control a camera, first click this button and register the camera information.
10	KEY LOCK	Locks camera control operations.
11	ZOOM	Sets the camera's zoom.
12	FOCUS	Sets the camera's focus.
13	EXPOSURE	Sets the camera's exposure.
14	WHITE BALANCE	Selects the camera's white balance type.
15	SD card slot select	Selects the camera's SD card slot.

Game controller mapping

You can use a commercially available game controller connected to the computer to perform the following operations.



\* The location of the buttons mapped to ZOOM differs depending on the manufacturer of the controller.

## Menu bar

## Windows

Menu		Explanation
File	New	This returns the settings in V-60HD RCS to their default values. * If current settings differ from default values, a message dialog box appears, allowing you to save the setting values to the computer as a file (*.rcs).
	Open	This displays the Open V-60HD Data window. This opens the file (*.rcs) where settings are saved and calls up the settings (p. 18).
	Save	This saves the current setting values, overwriting the open file (*.rcs; p. 18).
	Save as	This displays the Save V-60HD Data as window. This saves the setting values in a newly created file (*.rcs) of a different name (p. 18).
	Preferences	This displays the Preferences window (p. 6). You select the port on the computer where you're using V-60HD RCS.
	Quit	This quits V-60HD RCS (p. 7).
Help	V-60HD RCS Users Manual	This displays the V-60HD RCS Owner's Manual (this document).
	V-60HD Reference Manual	This displays the V-60HD Reference Manual.
	About V-60HD RCS	This displays the version information for V-60HD RCS.
	About Qt	This shows the license for the software being used (Qt).
MIDI	MIDI Settings	Displays MIDI Settings window. Select the MIDI controller that you want to use (p. 16).
	Clear MIDI Control Mapping	Deletes all MIDI mappings (p. 17).
	Show MIDI Control Mapping	Shows MIDI mappings in the V-60HD RCS window (p. 17).

## Mac

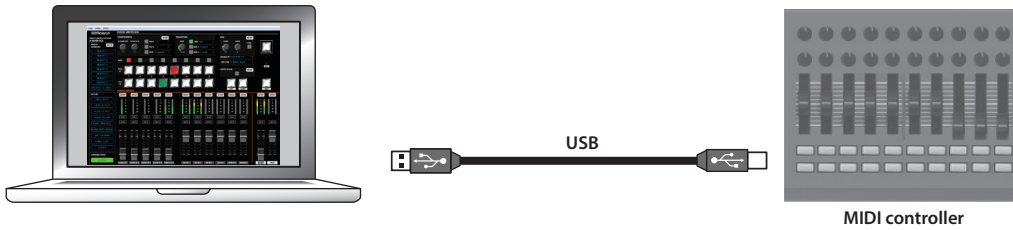
Menu		Explanation
V-60HD RCS	About V-60HD RCS	This displays the version information for V-60HD RCS.
	About Qt	This shows the license for the software being used (Qt).
	Preferences	This displays the Preferences window (p. 6). You select the port on the computer where you're using V-60HD RCS.
	Services	This shows the service menu for the OS.
	Hide V-60HD RCS	This hides the V-60HD RCS window.
	Hide Others	This hides all other application windows except the V-60HD RCS window.
	Show All	This displays all application windows.
	Quit V-60HD RCS	This quits V-60HD RCS (p. 7).
File	New	This returns the settings in V-60HD RCS to their default values. * If current settings differ from default values, a message dialog box appears, allowing you to save the setting values to the computer as a file (*.rcs).
	Open	This displays the Open V-60HD Data window. This opens the file (*.rcs) where settings are saved and calls up the settings (p. 18).
	Save	This saves the current setting values, overwriting the open file (*.rcs; p. 18).
	Save as	This displays the Save V-60HD Data as window. This saves the setting values in a newly created file (*.rcs) of a different name (p. 18).
Help	V-60HD RCS Users Manual	This displays the V-60HD RCS Owner's Manual (this document).
	V-60HD Reference Manual	This displays the V-60HD Reference Manual.
MIDI	MIDI Settings	Displays MIDI Settings window. Select the MIDI controller that you want to use (p. 16).
	Clear MIDI Control Mapping	Deletes all MIDI mappings (p. 17).
	Show MIDI Control Mapping	Shows MIDI mappings in the V-60HD RCS window (p. 17).

# Using a MIDI Controller for Operation

You can connect a MIDI controller to your computer, and use the MIDI controller to control V-60HD RCS. In this case, SDI and HDMI volume settings that on the V-60HD unit itself had to be adjusted via a menu can be controlled directly from a MIDI controller.

## Connecting a MIDI controller

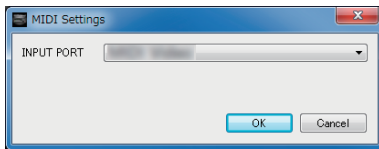
1. Using a USB cable, connect your MIDI controller to the computer that is running V-60HD RCS.



\* Some MIDI controllers might require a dedicated USB-MIDI driver.

2. From the V-60HD RCS menu bar, choose "MIDI" → "MIDI Settings."

The MIDI Settings window appears.



3. In the MIDI Settings window, in "INPUT PORT," choose the MIDI controller that's connected to the computer, and click the [OK] button.

This completes the connection between V-60HD RCS and the MIDI controller.

## Assigning MIDI controller operations to V-60HD RCS (MIDI mapping)

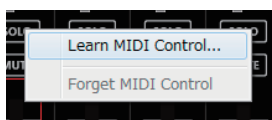
Here's how to assign (map) the MIDI controller to the buttons, knobs, and faders that are shown in the V-60HD RCS window and the AUDIO MIXER window.

\* V-60HD RCS receives the following MIDI messages regardless of the MIDI controller's channel settings.



Buttons, Faders	MIDI messages
[AUTO FADER] button	Control Change: 0-119 (0-63: OFF, 64-127: ON) Note On (switch on/off each time the message is received)
[SOLO] buttons	
[MUTE] buttons	
Faders	Control Change: 0-119 (0-127)

### 1. Right-click the button, knob, or fader that you want to map, and from the popup menu choose "Learn MIDI Control."



The message "Waiting for MIDI message" appears.

### 2. Operate a button or knob of your MIDI controller.

When the corresponding button or knob in V-60HD RCS operates, mapping is complete.

#### MEMO

##### • Viewing the MIDI mapping

You can check the mapped MIDI messages by viewing them in the window. From the menu bar, choose "MIDI" → "Show MIDI Control Mapping."



To hide the MIDI messages, from the menu bar choose "MIDI" → "Hide MIDI Control Mapping."

##### • Deleting MIDI mapping

To delete an individual MIDI mapping, right-click a mapped button or knob, and from the popup menu choose "Forget MIDI Control!"  
To delete all MIDI mappings, from the menu bar choose "MIDI" → "Clear MIDI Control Mapping."

# Saving V-60HD RCS Settings as a File

You can save the values of settings made using V-60HD RCS to the computer as a file (\*.rcs), and load the configured state when needed.

\* You can also save settings that were created in V-60HD RCS while offline.

## NOTE

- Only V-60HD RCS settings are saved in the file. Values in the V-60HD's preset memories (1–8) are not saved.
- Files saved to a USB flash drive from the V-60HD (\*.V06) cannot be loaded into V-60HD RCS.

## Saving settings

### Saving by overwriting

#### 1. From the "File" menu, select "Save."

This saves the current setting values, overwriting the open file (\*.rcs).

\* If the target setting values have never been saved before, the Save V-60HD Data as window for entering a file name is displayed. This saves the setting values in a newly created file (\*.rcs) of a different name.

### Saving using a name you specify

#### 1. From the "File" menu, select "Save as."

The Save V-60HD Data as window appears.

#### 2. Specify the destination for saving the file and a file name (\*.rcs), then click the [Save] button.

The file is saved to the computer.

## Loading settings

#### 1. From the "File" menu, select "Open."

The Open V-60HD Data window appears.

#### 2. Select the settings file (\*.rcs), then click the [Open] button.

The settings are loaded.

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