

DIRECT STREAMING AV MIXER  
**SR-20HD**



### Checking the Included Items

Check that all of the included items are present. If any of the included items are missing, contact your dealer.

- SR-20HD unit
- Startup Guide (this document)
- AC adaptor
- Leaflet "USING THE UNIT SAFELY"
- Power cord

### Reference Manual

Details on operations and menu lists are provided in "Reference Manual".

1. Enter the following URL in your computer.  
<https://proav.roland.com/manuals/>
2. Choose "SR-20HD" as the product name.



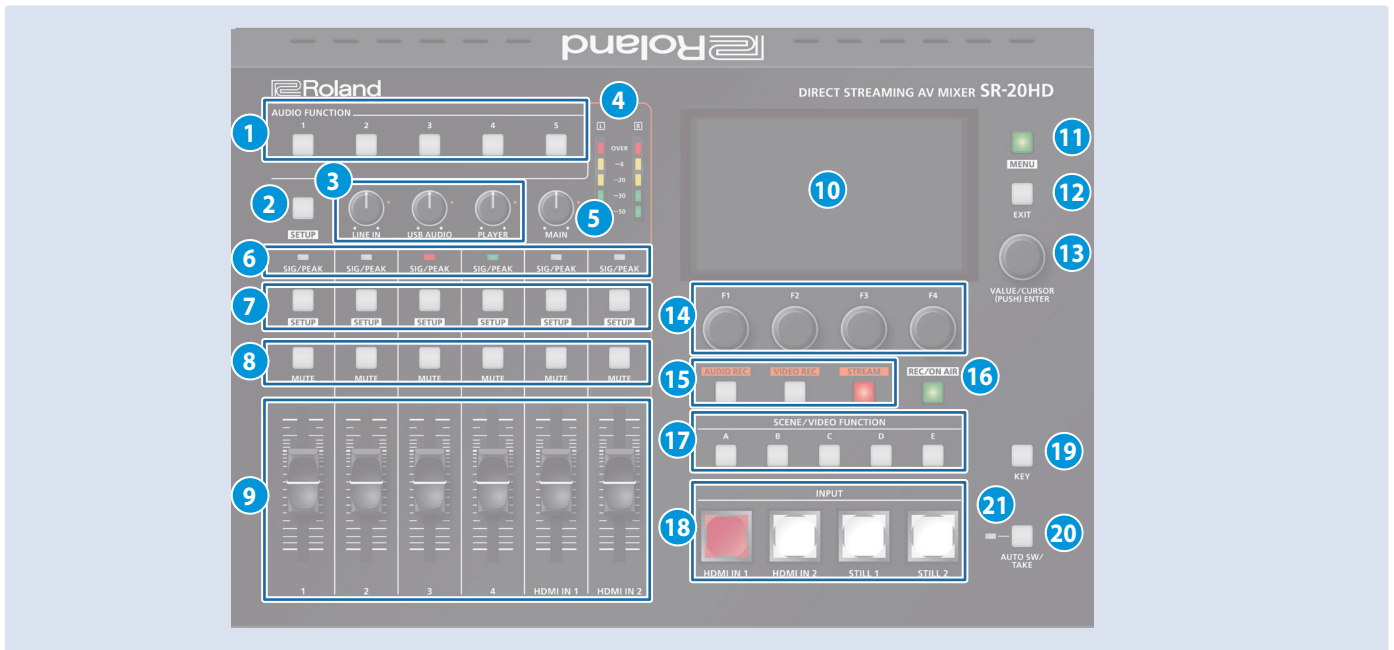
Before using the unit, ensure that its system program is at the most recent version. For information on available upgrades for the system program, see the Roland website (<https://proav.roland.com/>).

You can check the system program version by Pressing the [MENU] button → "System" → "Version".

Before using this unit, carefully read "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (the leaflet "USING THE UNIT SAFELY" and the Startup Guide (p. 8)). After reading, keep the document(s) where it will be available for immediate reference.

# Panel Descriptions

## Top Panel



### 1 AUDIO FUNCTION

#### [1]–[5] buttons

Use these buttons to turn on/off or execute the audio-related functions. You can also assign different functions to each button.

### 2 [SETUP] button

The audio input/output parameters aside from those selected using the **7** [SETUP] button are shown at the bottom of the display.

The target display channel changes each time you press the button.

LINE IN → USB AUDIO → PLAYER → HEADSET Mic → MAIN → Monitor → LINE IN → ...

### 3 [LINE IN] knob

Adjusts the input level for the LINE IN jacks.

#### [USB AUDIO] knob

Adjusts the volume of USB audio that's input from the device connected to the USB VIDEO IN port.

#### [PLAYER] knob

Adjusts the volume used to play back audio files (WAV) or video files (MP4) on the SD card.

### 4 Level meter

Indicates the volume level of the main output.

### 5 [MAIN] knob

Adjusts the main output level.

### 6 SIG/PEAK indicators

These indicators light up when audio input is detected.

Unlit	Less than -51 dB
Lit green	-50– -21 dB
Lit yellow	-20– -1 dB
Lit red	Over 0 dB (Excessive)

### 7 [SETUP] buttons

The input channel parameters you selected when pressing these buttons are shown at the bottom of the display.

### 8 [MUTE] buttons

Press these buttons to mute (silence) the audio of the selected input channels.

### 9 [1]–[4] faders

Adjusts the input level for the AUDIO IN 1–4 jacks.

#### [HDMI IN 1], [HDMI IN 2] faders

Adjusts the input level for the HDMI IN 1–2 connectors.

### 10 Display

Shows the status of the input/output video and of streaming/recording, as well as the parameters and menus.

### 11 [MENU] button

Switches the menu between visible and hidden.

### 12 [EXIT] button

Exits a menu level or cancels an operation.

### 13 [VALUE/CURSOR] knob

Turning	Selects the menu parameters, switches between parameters shown at the bottom of the display, and edits their values.
Pressing	Confirms a selected menu item or an edited setting.

**14 [F1]–[F4] knobs**

Use these knobs to set the parameter values shown at the bottom of the display.

**15 [AUDIO REC] button**

Shows the audio recording status.

Unlit	Stopped, no parameter shown at the bottom of the display
Lit red	Recording
Blinking yellow	Error occurred during recording

Press the button (lit green) to show the parameters related to audio recording at the bottom of the display.

**[VIDEO REC] button**

Shows the video recording status.

Unlit	Stopped, no parameter shown at the bottom of the display
Lit red	Now recording video
Blinking yellow	Error occurred during recording video

Press the button (lit green) to show the parameters related to video recording at the bottom of the display.

**[STREAM] button**

Shows the livestreaming status.

Unlit	Stopped, no parameter shown at the bottom of the display
Lit red	Now livestreaming
Blinking yellow	Error occurred during livestreaming

Press the button (lit green) to show the parameters related to livestreaming at the bottom of the display.

**16 [REC/ON AIR] button**

Parameters related to playing back/stopping either livestreaming or audio/video recording are shown at the bottom of the display.

**17 SCENE/VIDEO FUNCTION****[A]–[E] buttons**

These buttons recall the registered screen configurations and execute video-related functions.

You can also assign different functions to each button.

**18 INPUT****[HDMI IN 1], [HDMI IN 2], [STILL 1], [STILL 2] buttons**

You can also assign different functions to each button.

Lit red	Currently selected video (video now outputting)
Blinking red	Video is transitioning
Lit white	Video input is valid
Unlit	No video input

**19 [KEY] button**

Turns key composition on/off.

**20 [AUTO SW/TAKE] button**

Turns the auto switching function on/off.

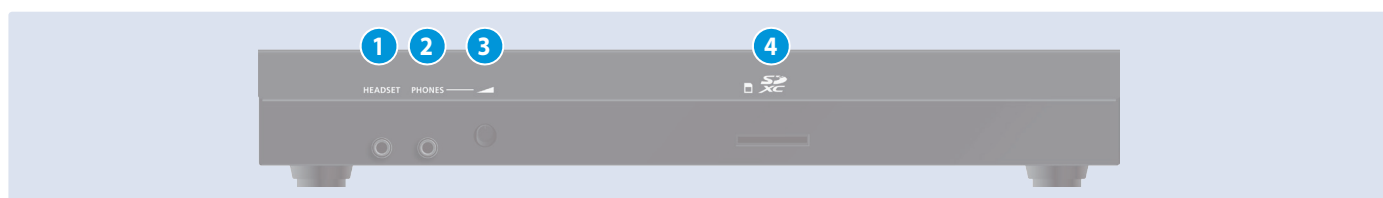
When PGM Direct (the function that immediately sends the selected video to final output) is on, the unit automatically switches between the HDMI IN 1–2 video, STILL 1–2 still images or scenes A–E that are registered in the SCENE/VIDEO FUNCTION [A]–[E] buttons.

When PGM Direct is off, this button acts as the [TAKE] button to switch between final output.

**21 AUTO SW indicator**

Lights up green at the video transition timing that's controlled by the auto-switching function.

## Front Panel

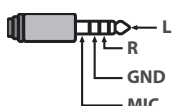
**1 HEADSET jack**

Connect your headset or headphones here.

**NOTE**

Use a headset with a 3.5 mm CTIA-type mini plug (4-pole).

\* Pin arrangement for mini cable (4-pole)

**2 PHONES jack**

Connect headphones.

**3 [PHONES] knob**

Adjusts the volume of audio coming through the headset or headphones connected to the HEADSET or PHONES jack.

\* The same audio signal is output from both the HEADSET and the PHONES jack.

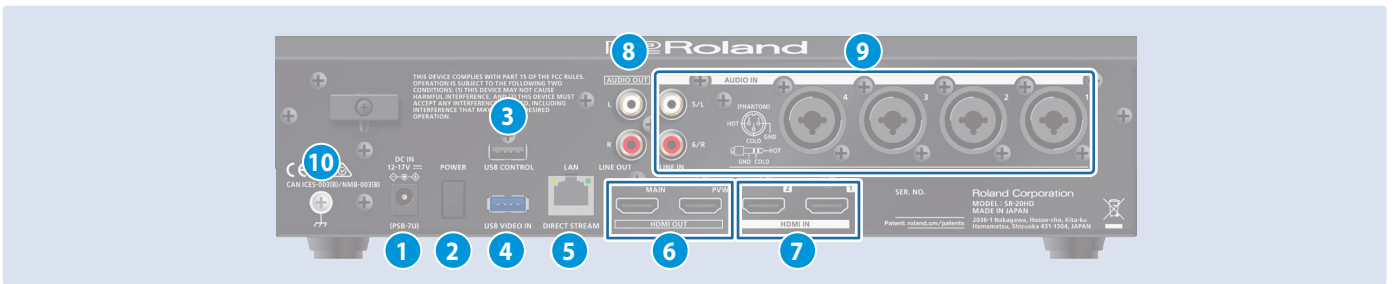
\* You can't adjust the volume for either jack independently.

**4 SDXC card slot**

Insert an SD card here.

## Rear Panel

\* To prevent malfunction and equipment failure, always turn down the volume, and turn off all the units before making any connections.



### 1 DC IN jack

Connect the included AC adaptor to this jack.

\* Use the cord hook to secure the cord of the AC adaptor as shown in the illustration.



### 2 [POWER] switch

Turns the power on/off.

### 3 USB CONTROL port

- You can connect your smartphone to this port and use it for tethering.
- Connect a USB flash drive to import still images, or connect a USB keyboard for inputting text.

### 4 USB VIDEO IN port

Connect a USB-compatible Web camera here.

### 5 LAN (DIRECT STREAM) port

Connect this port to a network device for livestreaming.

#### NOTE

As this port supports GbE, use a LAN cable with a CAT5e specification or better.

### 6 HDMI OUT (MAIN, PVW) connectors

These connectors output video.  
Connect external displays and projectors.

\* You can also configure the menu (p. 7) settings to make the menus that appear on this unit's display also appear on the display that's connected to the HDMI OUT PVW connectors.

### 7 HDMI IN 1, 2 connectors

These connectors input video.  
Connect a video camera or computer with an HDMI output connector here.

### 8 AUDIO OUT (LINE OUT) jacks

These jacks output audio.  
Connect them to an audio recorder, amplifier, speakers, or other such equipment.

### 9 AUDIO IN 1-4 (XLR/TRS) jacks

These jacks input audio.  
Connect a mic or line-level analog audio equipment here.

\* Pin assignment of AUDIO IN 1-4 (XLR/TRS) jacks



#### \* About phantom power

You can supply phantom power (+48 V) from the AUDIO IN 1-4 jacks (XLR). Turn on phantom power when you're using a condenser microphone that requires phantom power.

Use the [MENU] button → "Audio Input" → "AUDIO IN 1"- "AUDIO IN 4" → set "PHANTOM +48 V" to "On".

### AUDIO IN 5/L, 6/R (LINE IN) jacks

These jacks input audio.  
Connect analog audio equipment such as an audio mixer here.

### 10 Ground terminal

Connect this to an external earth or ground if necessary.

# Basic Operations

## Turning the Power On/Off

- \* Before turning the power on/off, minimize the volume. Even if the volume is minimized, you might hear a sound when turning the power on/off, but this is not a malfunction.
- \* Before disconnecting an SD card or a USB flash drive while the power is on, be sure to perform the Eject operation.
- \* When turning the power off, you must perform the shutdown operation.
- \* This unit is not designed for continuous operation over long periods of time (one month or longer). If you want to use this unit over long periods of time, cycle the power periodically.

### Turning the power on

1. Make sure all devices are turned off.
2. Turn on the [POWER] switch on the SR-20HD to turn on the power.
3. Power-on the source devices.

Turn on the power of source devices such as video cameras that are connected to the SR-20HD's input connectors.

4. Power-on the output devices.

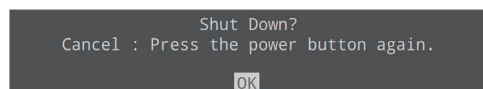
Turn on the power of devices such as projectors that are connected to the SR-20HD's output connectors.



### Turning the power off

1. Turn off the power in the sequence of first the output equipment, and then the sources.
2. Turn the SR-20HD's [POWER] switch off.

The following message is shown on the display.



3. Press the [VALUE/CURSORS] knob to complete the shutdown.

If you decide to cancel, press the [POWER] switch once again.

#### About the Auto Off function

The power to the SR-20HD turns off automatically when all of the following states persist for 240 minutes (Auto Off function).

- No operation performed on the SR-20HD
- No video input
- No equipment is connected to the HDMI OUT connectors
- No livestreaming or video recording

If you do not want the power to be turned off automatically, disengage the Auto Off function. "System" menu → set "Auto Off" to "Off".

- \* Unsaved data is lost when the power turns off. Before turning the power off, save the data that you want to keep.
- \* To restore power, turn the power on again.

## About SD Cards

An SD card is required to livestream or record video/audio, or to use still images, video or audio files on the SR-20HD.

### Cards that can be used with the SR-20HD



The SR-20HD supports SDXC cards.

Depending on the manufacturer or type of SD card, some cards might not work correctly for video or audio recording on the SR-20HD.

For the latest information on cards that are known to work, refer to the Roland support page.

<https://roland.cm/sr-20hd>



#### NOTE

Before using a commercially available SD card with the SR-20HD, you must first format it as described in "Formatting an SD Card".

## Inserting an SD Card

1. Insert the SD card into the SDXC card slot until you hear it click into place.

#### NOTE

When inserting an SD card, take care that it is oriented correctly, and push it all the way in. Do not use excessive force.



## Formatting an SD Card

1. Select [MENU] button → "SD Card/USB Memory" → "SD Card Format", and then press the [VALUE/CURSORS] knob.  
A confirmation message appears.
2. Select "OK" and then press the [VALUE/CURSORS] knob to confirm.

The SD card is formatted.

#### NOTE

Formatting erases all data (recorded video and audio data) on the SD card.

## Removing an SD Card

1. Select [MENU] button → "SD Card/USB Memory" → "SD Card Eject", and then press the [VALUE/CURSORS] knob.  
The screen indicates "The SD Card is safe to remove", and it is now safe to remove the card.
2. Press the SD card inward.
3. Grasp the SD card and pull it toward yourself.

## Basic Screen

**Preview video (PVW)**  
Shows the input video.

**Final output video (PGM)**  
Shows the final output video.

Shows the bit rate for the video to livestream or record.

Shows the storage capacity and free space of the SD card.

Shows the elapsed time for livestreaming or recording.

Shows the network connection status.

**Status area**

**Parameter area**  
Shows four parameters, the values of which you can edit and confirm using the [F1]–[F4] knobs.

The screenshot shows a live broadcast interface. The top left shows a preview of a woman smiling. The top right shows a 'LIVE' status and a news-style graphic with the headline 'ANALYSIS: How the domestic smartphone market is growing up?' and a bar chart. Below the video feeds is a status bar with 'Card' (Target: SDCX 64GB, Remain: 10.80GB), 'Bitrate' (Target: 9,000kbps, Encoding: 6,900kbps), 'Elapsed time' (01:23:45), and 'Network' (LAN: 1,000M, Tethering: ---). At the bottom is the 'Parameter area' with four knobs: 'EQ Mid Gain' (+5.0 dB), 'EQ Mid Freq' (400Hz), and 'EQ Mid Q' (2.0). A fourth knob is partially visible.

## Operating the Parameter Area

Four parameters are shown in the parameter area at the bottom of the display. Use the [F1]–[F4] knobs to edit and confirm the values.

- Use the AUDIO IN 1–4 and HDMI IN 1–2 [SETUP] buttons, and the [AUDIO REC], [VIDEO REC], [STREAM] and [REC/ON AIR] buttons to switch between parameters to display.
- You can assign the functions you want to show in the parameter area (analog gain, mute, delay, etc.) to the AUDIO FUNCTION [1]–[5] buttons.
- If there are more than four parameters, use the [VALUE/CURSORS] knob to switch between pages and show the additional parameters.

Select the parameters to show in the parameter area

Switch between pages with the [VALUE/CURSORS] knob

Use the [F1]–[F4] knobs to edit and confirm the values

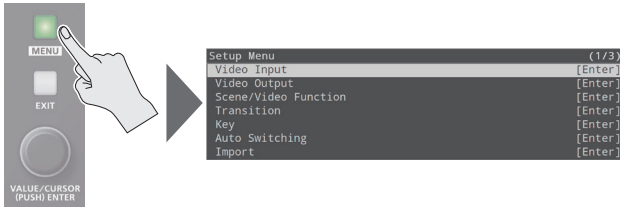
The screenshot shows the physical control panel of the Roland Direct Streaming AV Mixer SR-20HD. The top section is labeled 'AUDIO FUNCTION' and contains five buttons labeled '1' through '5', each with a 'SETUP' button below it. Below these are four 'MUTE' buttons. The middle section is labeled 'SCENE/VIDEO FUNCTION' and contains five buttons labeled 'A' through 'E'. Below these are four 'INPUT' buttons labeled 'HDMI IN 1', 'HDMI IN 2', 'STILL 1', and 'STILL 2'. On the right side, there is a 'MENU' button, an 'EXIT' button, and a 'VALUE/CURSORS (PUSH ENTER)' knob. The background shows the same basic screen as in the previous image.

## Operating the Menu

Here's how to access the menu to configure the video/audio/livestreaming settings and the settings for the SR-20HD.

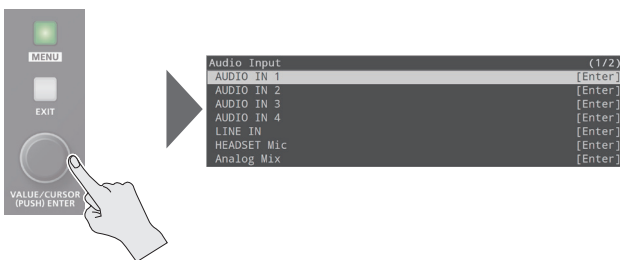
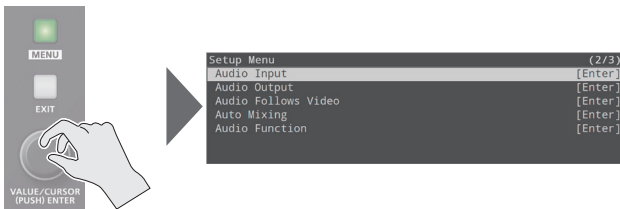
\* The menu can also be shown on the display that is connected to the HDMI OUT PVW connector.

### 1. Press the [MENU] button to display the menu.



The [MENU] button lights up, the menu categories are displayed.

### 2. Turn the [VALUE/CURSOR] knob to select a category, and press the [VALUE/CURSOR] knob to confirm.



The menu for the selected category is displayed.

### 3. Turn the [VALUE/CURSOR] knob to select a menu item, then press the [VALUE/CURSOR] knob to confirm.

The cursor moves to the setting value.

- If the menu item is located at a deeper level, repeat step 3.
- Pressing the [EXIT] button moves you back one level higher.

### 4. Turn the [VALUE/CURSOR] knob to change the value of the setting.

- By turning the [VALUE/CURSOR] knob while pressing it, you can change the value more greatly.
- Pressing and holding the [VALUE/CURSOR] knob returns the current menu item you're setting to its default value.

### 5. Press the [VALUE/CURSOR] knob to apply the setting.

The cursor returns to the menu item.

### 6. Press the [MENU] button to quit the menu.



# USING THE UNIT SAFELY

## WARNING

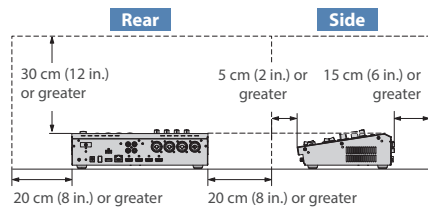
### Concerning the Auto Off function

The power to this unit will be turned off automatically after a predetermined amount of time has passed since it was last used for playing music, or its buttons or controls were operated (Auto Off function). If you do not want the power to be turned off automatically, disengage the Auto Off function (p. 5).



### Secure a sufficient amount of space at the setup location

Since this unit normally emits a slight amount of heat, make sure to secure sufficient space around it, as shown below.



## WARNING

### Use only the supplied AC adaptor and the correct voltage

Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.



### Use only the supplied power cord

Use only the attached power cord. Also, the supplied power cord must not be used with any other device.



### Handle lithium batteries carefully

- Lithium batteries must never be recharged, heated, taken apart, or thrown into a fire or water.
- Keep lithium batteries out of reach of small children. If a child has accidentally swallowed a battery, see a doctor immediately.
- Never expose lithium batteries to excessive heat such as sunshine, fire or the like.



## CAUTION

### Handle the ground terminal carefully

If you remove the screw from the ground terminal, be sure to replace it; don't leave it lying around where it could accidentally be swallowed by small children. When refastening the screw, make that it is firmly fastened, so it won't come loose.



### Precautions concerning use of phantom power supply

Always turn the phantom power off when connecting any device other than condenser microphones that require phantom power. You risk causing damage if you mistakenly supply phantom power to dynamic microphones, audio playback devices, or other devices that don't require such power. Be sure to check the specifications of any microphone you intend to use by referring to the manual that came with it.



(This instrument's phantom power: 48 V DC, 10 mA Max)

# IMPORTANT NOTES

## Power Supply

- Place the AC adaptor so the side with the indicator faces upwards. The indicator will light when you plug the AC adaptor into an AC outlet.

## Placement

- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface.

## Repairs and Data

- Before sending the unit away for repairs, be sure to make a backup of the data stored within it; or you may prefer to write down the needed information. Although we will do our utmost to preserve the data stored in your unit when we carry out repairs, in some cases, such as when the memory section is physically damaged, restoration of the stored content may be impossible. Roland assumes no liability concerning the restoration of any stored content that has been lost.

## About the Internal Battery

- The time is stored and maintained in this unit even when the power is turned off. If the internal battery loses power, the following message is shown on the display.

**Battery Error!**  
Please contact our services.

If you see the message "Battery Error!", contact a Roland service center or an official Roland dealer for service.

For a list of Roland service centers and official Roland dealers, refer to the Roland website.


## Additional Precautions

- Any data stored within the unit can be lost as the result of equipment failure, incorrect operation, etc. To protect yourself against the irretrievable loss of data, be sure to make a backup of the data stored within it; or you may prefer to write down the needed information.
- The manufacturer accepts no responsibility for recovery of stored content that might be lost, including video or audio data, nor for compensation of any such loss.
- Never strike or apply strong pressure to the display.
- This unit allows you to switch images at high speed. For some people, viewing such images can cause headache, nausea, or other discomfort. Do not use this unit to create video that might cause these types of health problems. Roland Corporation will accept no responsibility for any such health problems that may occur in yourself or in viewers.
- Do not use connection cables that contain a built-in resistor.
- This unit cannot be used to directly connect to a network operated by a telecommunications provider (such as a mobile or landline-based telecommunications company, an Internet provider or the likes), including a public wireless LAN. You must use a router or similar equipment when connecting this unit to the Internet.

## Using External Memories

- Please observe the following precautions when handling external memory devices. Also, make sure to carefully observe all the precautions that were supplied with the external memory device.
  - Do not remove the device while reading/writing is in progress.
  - To prevent damage from static electricity, discharge all static electricity from your person before handling the device.

## Intellectual Property Right

- It is forbidden by law to make an audio recording, video recording, copy or revision of a third party's copyrighted work (musical work, video work, broadcast, live performance, or other work), whether in whole or in part, and distribute, sell, lease, perform or broadcast it without the permission of the copyright owner.
- Do not use this product for purposes that could infringe on a copyright held by a third party. We assume no responsibility whatsoever with regard to any infringements of third-party copyrights arising through your use of this product.
- The copyright of content in this product (the sound waveform data, style data, accompaniment patterns, phrase data, audio loops and image data) is reserved by Roland Corporation.
- Purchasers of this product are permitted to utilize said content (except song data such as Demo Songs) for the creating, performing, recording and distributing original musical works.
- Purchasers of this product are NOT permitted to extract said content in original or modified form, for the purpose of distributing recorded medium of said content or making them available on a computer network.
- The SDXC logo  is trademark of SD-3C, LLC.
- This product is using the open source license (GPL/LGPL) software. You have the right to acquire, modify and distribute the source code for this open source license software. You can obtain the open source license source code used in this product by downloading it from the following website: <https://proav.roland.com/global/support/>
- This product contains eParts integrated software platform of eSOL Co.,Ltd. eParts is a trademark of eSOL Co., Ltd. in Japan.
- This product uses software that is covered by the MIT license. For details, refer to the following manufacturer website: <https://proav.roland.com/global/support/>
- Roland is an either registered trademark or trademark of Roland Corporation in the United States and/or other countries.
- Company names and product names appearing in this document are registered trademarks or trademarks of their respective owners.