

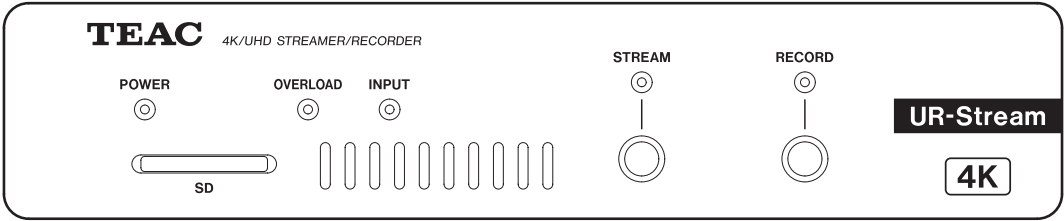
TEAC

REFERENCE MANUAL

UR-Stream

4K/UHD VIDEO STREAMER/RECORDER

Thank you for choosing TEAC.
Read this manual carefully to get the best performance from this unit.
After reading this manual, keep it in a safe place for future reference.



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1 - Introduction

Features

- Streams 4K UHD (3840x2160p) video signals encoded to H.265
- Decodes streaming video signals
 - 4K UHD (3840x2160p)
- Compatible with major streaming protocols such as RTMP, RTSP and HLS
- Unicast and multicast streaming support
- Equipped with balanced analog Euroblock connectors for audio I/O
- Reference level switching function and output level configuration function installed
- Recorder function installed
- Records video data directly to SD cards
- External video storage via USB 3.0
- Uploads recorded files on SD cards or external storages up to FTP servers
- Web browser based remote control to configure unit settings
- Supports Gigabit Ethernet
- Supports PoE Plus (Power over Ethernet Plus) Power supply also can be done by the optional AC adapter(TASCAM PS-P1220E: sold separately)
- Compact half-rack size. Included surface rack mountable angles allow installation on different usage scenes and environments.

UR-Stream is not a medical grade device. Installation and use of UR-Stream in a healthcare or medical facility such as hospital are the responsibility of the installer. TEAC is not liable for any troubles and/or issues which may be caused by use of a non-medical grade device in that facility.

Note about computer operation

If you are unsure about anything related to the basic operation of a computer when it is mentioned in an explanation in this manual, please refer to the computer operation manual.

To use this unit with a computer, dedicated software must be installed on the computer.

For details about software installation, see "Installing TASCAM DISCOVERY" on page 9.

Conventions used in this manual

The following conventions are used in this manual.

- SD/SDHC memory cards are called "SD cards".
- "USB flash drives" are sometimes called "USB drives".
- The device that is currently selected is called the "current device".
- As necessary, additional information is provided under TIP, NOTE and CAUTION headings.

TIP

These are tips about how to use the unit.

NOTE

These provide additional explanations and describe special cases.

ATTENTION

Failure to follow these instructions could result in damage to equipment or lost data, for example.

CAUTION

Failure to follow these instructions could result in injury.

Trademarks

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- The terms HDMI and HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing LLC in United States and other countries.
- The SDHC logo is a trademark of SD-3C, LLC.



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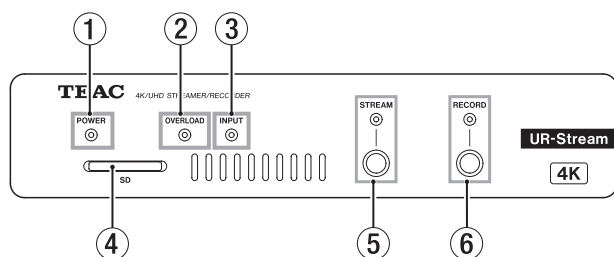
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2 - Names and Functions of Parts

Front panel



① POWER indicator

This shows whether the power is on or off.

	Status	Meaning
Power is off	Unlit	
Power is on	Lit blue	Ordinary operation

NOTE

If a switching hub that supports PoE power supply rather than PoE Plus is connected, the OVERLOAD, INPUT, STREAM and RECORD indicators will light.

② OVERLOAD indicator

These light when signals reach 3 dB below the maximum input level.

③ INPUT indicator

This shows the status of signal input from an HDMI source device.

Status	Meaning
Lit blue	Ordinary operation
Blinking red	Invalid signal

④ SD card slot

Insert SD card in this slot. (see “Inserting and removing SD card” on page 8)

⑤ STREAM button and indicator

Press this button to turn RTMP streaming on and off. (see “RTMP page” on page 14)

This indicator shows the streaming status of this unit.

Status	Meaning
Unlit	The encoding/decoding functions are disabled (off).
Blinking red	The encoding/decoding functions are enabled, but they have no streaming data.
Lit blue	Streaming is occurring normally.

⑥ RECORD button and indicator

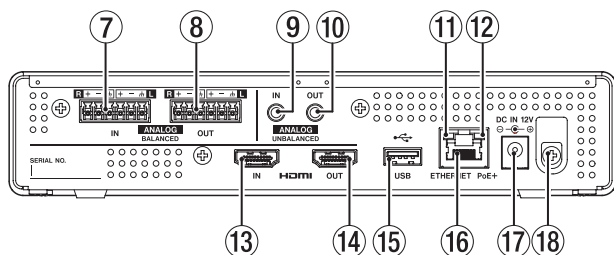
Press this button to start recording to external storage if it is available. (see “File recording page” on page 16)

Press this button during recording to stop recording.

This indicator shows the status of recording to external storage.

Status	Meaning
Unlit	Recording is stopped.
Blinking red	The recording medium is full or unavailable. Or, there is no input from an HDMI source device.
Lit red	Recording is in progress.

Rear panel



⑦ ANALOG BALANCED IN L/R connectors

These are balanced Euroblock analog audio input connectors.
(HOT, COLD, GND from the left)

⑧ ANALOG BALANCED OUT L/R connectors

These are balanced Euroblock analog audio output connectors.
(HOT, COLD, GND from the left)

⑨ ANALOG UNBALANCED IN connector

This stereo mini jack is an analog audio input.

⑩ ANALOG UNBALANCED OUT connector

This stereo mini jack is an analog audio output.

⑪ Link status/activity indicator

Orange indicates that a gigabit Ethernet link has been established.

⑫ Gigabit link status indicator

Green indicates that a link is established between the devices.
Blinking indicates that signals are being transmitted between the devices.

⑬ HDMI IN port

Connect a DSLR camera or other HDMI source device here.

⑭ HDMI OUT port

Connect an HDMI monitor or other HDMI sync device here.

⑮ USB port

Connect (and disconnect) USB storage here. (see "Connecting and disconnecting USB storage" on page 8)

⑯ ETHERNET/PoE+ connector

This is an Ethernet port.

Use this to connect to a network, transfer data and control the unit externally.

Power is received through this connection when connected to a switching hub that supports PoE Plus power supply. (see "Connecting the power" on page 7)

⑰ DC IN 12V connector

Connect a PS-P1220E AC adapter (sold separately) here when connected to a switching hub that does not support PoE Plus power supply.

⑱ Cord holder

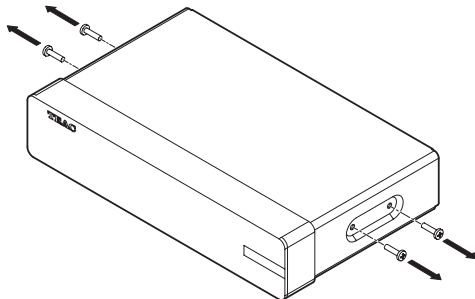
When using a PS-P1220E AC adapter (sold separately), hook its cord here to prevent accidental disconnection.

3 - Preparation

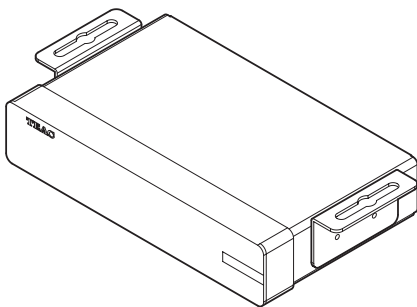
Installing the attachment brackets

By installing the included attachment brackets on this unit, you can fix it in place on top of or underneath a desk, for example.

1. Remove the four screws installed in the left and right sides of the enclosure.

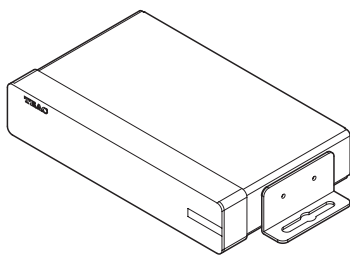


2. Align the included attachment brackets with the enclosure.

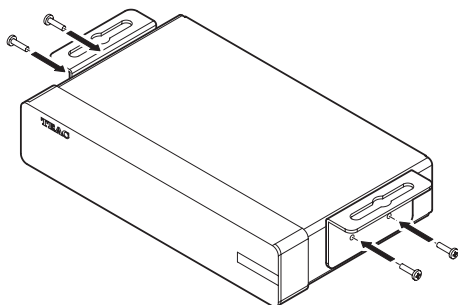


NOTE

When installing this unit on a desk, align the brackets as shown in the illustration below.



3. Use the four removed screws to install the attachment brackets on the unit.



Installing on or under a desk

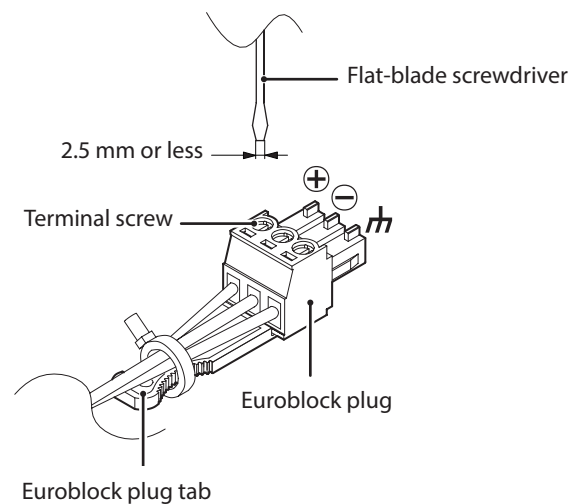
To install this unit on or under a desk, use 4 commercially-available screws that are suitable for the material and thickness of the desk.

NOTE

The width of the attachment bracket openings is 7.1 mm. See the dimensional diagrams at the end of this manual for details about the attachment brackets.

1. With the two attachment brackets already installed on the unit, align the unit with the desk as desired.
2. Make marks where the screw holes will be made in the desk.
3. Drill pilot holes for the screws in the desk.
4. Attach the unit to the desk with 4 screws.

Connecting Euroblock plugs



1. Loosen the Euroblock plug terminal screws.

NOTE

Use a flat-blade screwdriver with a width of 2.5mm or less.

2. Insert wires.

NOTE

AWG16–AWG28 wires are compatible with the included Euroblock plugs. Using wires within the compatible range, trim about 7 mm of the protective sheaths from their ends.

3. Tighten the Euroblock plug terminal screws.

NOTE

Confirm that the wires cannot be pulled out.

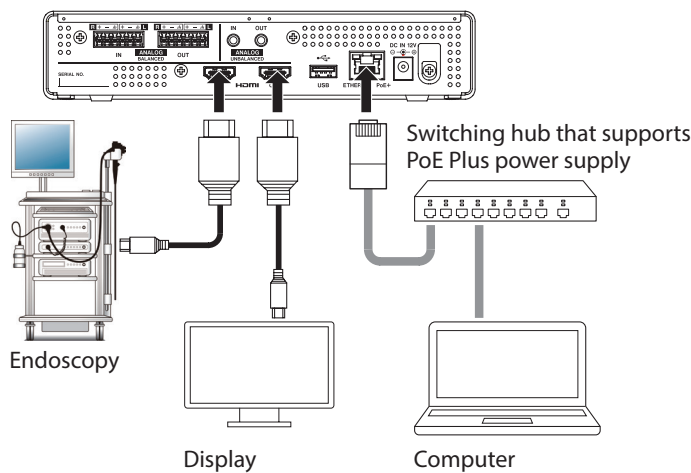
4. Use an included wire band to attach the wires to the Euroblock plug tab.

Connecting other equipment

This is an example of UR-Stream connections.

Precautions before making connections

- Carefully read the operation manuals of the devices to be connected and then connect them correctly.
- Before making connections, turn this unit and all equipment to be connected off (standby).
- Install all connected devices, including this unit, so that they are powered from the same line. When using a power strip or similar device, be sure to use one that has high current capacity (thick cable) in order to minimize fluctuations in power voltage.



Connecting the power

Connect a switching hub that supports PoE Plus power supply or use a dedicated TASCAM PS-P1220E AC adapter (sold separately) to power this unit.

Supplying power with PoE Plus

Using a category 5E or higher LAN cable, connect the UR-Stream to a switching hub that supports PoE Plus power supply.

ATTENTION

Do not connect the dedicated TASCAM PS-P1220E AC adapter when using PoE Plus power supply.

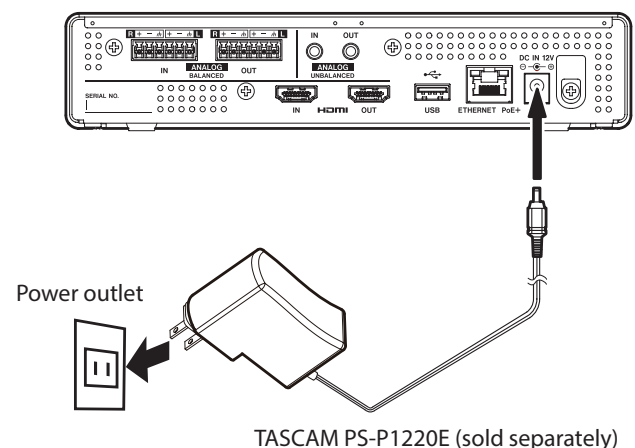
NOTE

To connect to a switching hub that does not support PoE Plus power supply, use a dedicated TASCAM PS-P1220E AC adapter (sold separately) to supply power.

Supplying power with a dedicated AC adapter

Connect a TASCAM PS-P1220E AC adapter (sold separately) to the unit's DC IN 12V connector the unit.

Use the AC adapter (TASCAM PS-P1220E) to connect a power supply to the unit as shown below.



ATTENTION

Never use any adapter other than the designated TASCAM PS-P1220E AC adapter. Use of a different adapter could cause malfunction, fire or electric shock.

3 - Preparation

Inserting and removing SD card

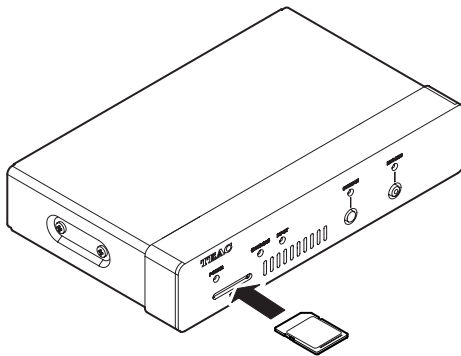
Inserting SD card

Insert an SD card into an SD card slot on the front of the unit to enable it to record.

NOTE

SD cards can be inserted whether or not the unit is on or off.

- Inserted SD card with the correct orientation.
- The label should be up and the connector should be inserted toward the back.



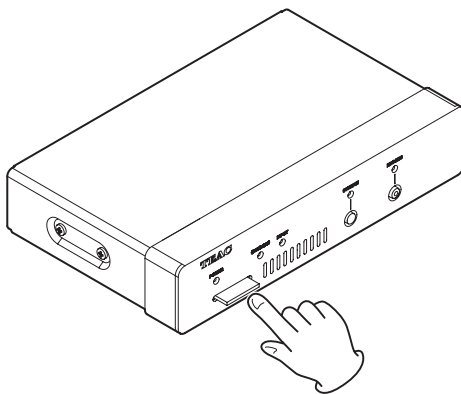
Removing SD card

After selecting the SD card on the Storage Device Management screen and pressing the [▲ Safety Remove](#) button, remove the SD card. (see "Advanced page" on page 22)

ATTENTION

Never remove an SD card when data is being written. Doing so could cause data to be lost.

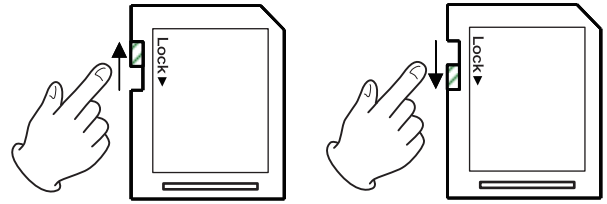
1. Press the SD card in gently to make it to come forward.



2. Pull the SD card out by hand.

SD card write protection

SD cards have write-protection switches that prevent writing new data to them.



If you slide the protection switch to the "LOCK" position, recording will not be possible. Unlock cards to enable recording.

Connecting and disconnecting USB storage

Connecting USB storage

Connect USB storage to the USB port on the back of the unit to enable recording.

NOTE

You can connect USB storage when the unit is on or off.

Disconnecting USB storage

After selecting the USB storage device on the Storage Device Management screen and pressing the [▲ Safety Remove](#) button, remove the USB storage device. (see "Advanced page" on page 22)

ATTENTION

Never disconnect USB storage when data is being written. Doing so could cause data to be lost.

4 - Using Streaming Dashboard

Overview

To control this unit, use the IP address assigned to it to log in with the user interface from a browser.

TASCAM DISCOVERY

TASCAM DISCOVERY is an application that detects UR-Stream units on the network. It is available for Windows, Mac and Linux computers.

Streaming Dashboard

Streaming Dashboard is a browser-based user interface. This interface can control UR-Stream units on the network.

ATTENTION

Install Google Chrome in advance and set it as the default web browser.

Installing TASCAM DISCOVERY

Install the TASCAM DISCOVERY application that is on the included USB flash drive.

1. Connect the included USB flash drive to a computer.
2. Open the "Setup" folder on the USB flash drive.
3. Select the file for the operating system being used and install TASCAM DISCOVERY.
 - Windows
Double-click "TASCAM DISCOVERY_App_Windows.exe" to install it.
 - Mac
Double-click the "TASCAM DISCOVERY_App-os-x.dmg" file, and follow the instructions on the screen that appears to drag the icon and install it.
 - Linux
Uncompress "TASCAM DISCOVERY_App_Linux-x64.tar.gz" and follow the procedures in "READNME-linux" to install it.

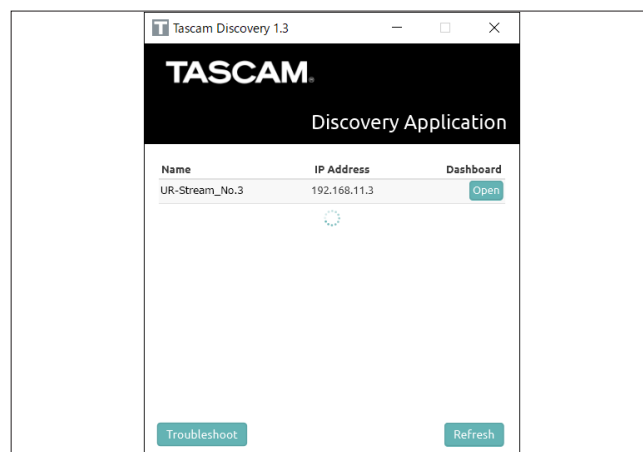
Connecting Streaming Dashboard to a UR-Stream

1. Connect the UR-Stream to a router with a LAN cable through a switching hub that supports PoE Plus power supply.
2. Connect the computer that will control the UR-Stream to the network by Wi-Fi or with a wired connection.

ATTENTION

Connect the UR-Stream and the computer that will control it to the same router.
If connections are made through multiple hubs and routers, the app might not be able to detect devices on the network. Even when the UR-Stream and the controlling computer are connected to the same hub or router, detection might not be possible depending on the model being used.
For further information, please contact your network administrator.

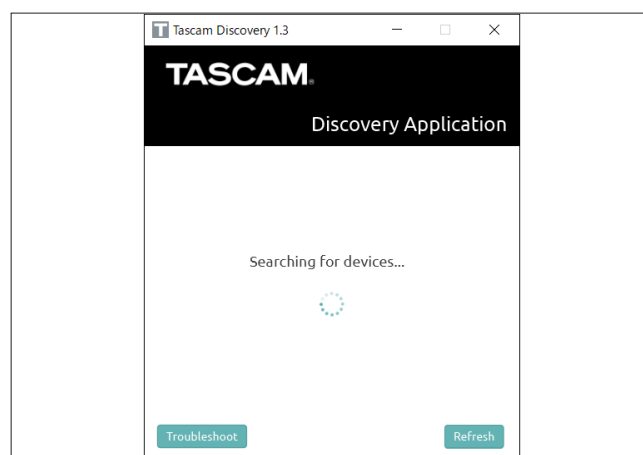
3. The following screen will appear when TASCAM DISCOVERY is launched.



If multiple UR-Stream units are connected by LAN, they will all appear on the login screen.

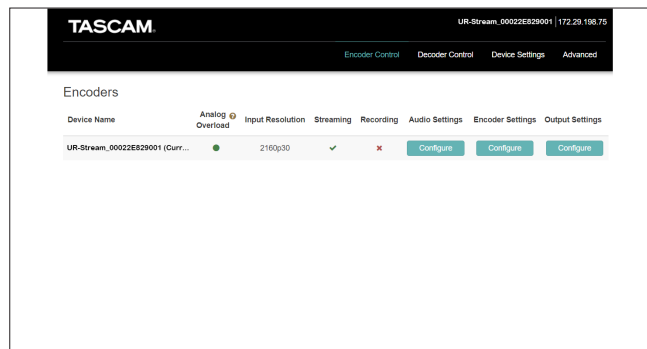
NOTE

- The TASCAM DISCOVERY version is shown at the top left of this screen.
- If the UR-Stream is off or it cannot be detected on the network, the following screen will appear.



4 - Using Streaming Dashboard

- Click the “Open” button for the UR-Stream you want to connect.
Select the UR-Stream that you want to set or check and log in to it.
When connection between the UR-Stream and the controlling computer is confirmed, the Streaming Dashboard Encoder Control screen will open.



NOTE

Click the “Open” button in TASCAM DISCOVERY for a UR-Stream to make it the current device.

TIP

When using multiple UR-Stream units on the network, we recommend connecting to each one individually using Streaming Dashboard.
Identifying UR-Stream units can be made easier by giving each its own name. (see “General page” on page 20)

If a unit cannot be found using TASCAM DISCOVERY

If a unit cannot be found when using TASCAM DISCOVERY, follow these procedures to connect it using Streaming Dashboard.

Turn the unit on and get the IP address and other network information for it.

- Connect a USB flash drive or SD card.
- Disconnect the USB flash drive or SD card after waiting about 30 seconds.
A “streaming_network_configurations.txt” file will be created on the USB flash drive or SD card.
This file includes the following information.
 - IP address
 - Subnet mask
 - Gateway address
 - Domain name server (DNS)
- Input the IP address shown in the text file into the web browser, and connect it to Streaming Dashboard.

Screen overviews

When connected to Streaming Dashboard, the Encoder Control screen will open.

Tab Area overview

Selection buttons for each page are shown at the top of the screen.

The locations of the buttons depend on the size of the window or tablet display.



① Current device name

Shows the currently selected device.

② IP address

This shows the IP address of the IP address item on the Network page of the Device Settings screen. (see “Network page” on page 21)

③ Page selection buttons

Click a page selection button to open that page.

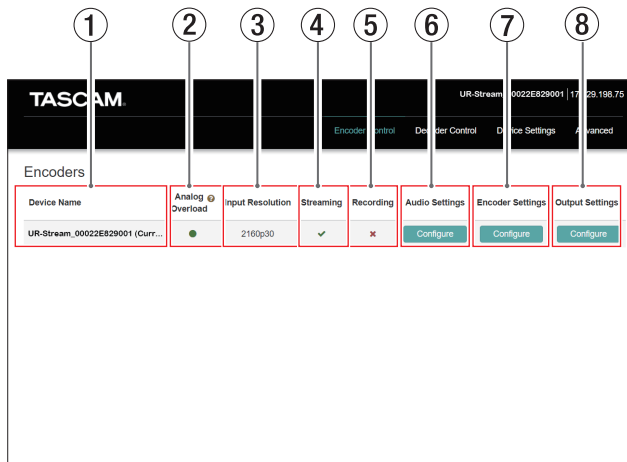
The selection button for the open page appears lit.

Button	Meaning
Encoder Control	Use to set and manage encoder functions.
Decoder Control	Used to set and manage decoder functions.
Device Settings	This shows the status of the connected UR-Stream and can be used to make settings for it.
Advanced	Use to restart a connected UR-Stream or update its firmware.

Encoder Control page

All the encoder functions of UR-Stream units on the current network can be controlled on the Encoder Control screen. The name of the current device is shown in the first line of the table.

Every line shows the status of encoder functions and has buttons to change their settings.



① Device Name

This shows the name set in the Name item on the General page of the Device Settings screen. (see "General page" on page 20)

② Analog Overload

These light when input signals reach 3 dB below the maximum input level.

③ Input Resolution

This shows whether a valid video signal is detected for the selected video source.

- This column shows the resolution and frame rate when a valid video signal is detected from the selected video source.
- When is shown, no valid video signal is currently being detected.

A pop-up message will appear if the mouse pointer is placed over the icon.

④ Streaming

This shows whether the encoder is actively streaming.

A pop-up message will appear if the mouse pointer is placed over the icon.

Indicator appearance	Pop-up message	Meaning
	Streaming	Streaming is active (RTMP, HLS, unicast, multicast or RTSP).
	Not streaming	All streaming is off.
	RTMP connecting	RTMP is connecting to a server.
	Initializing	The HLS server is initializing.
	Error connecting to RTMP server	An error occurred during connection. Confirm that the correct values have been input for the RTMP settings.

Indicator appearance	Pop-up message	Meaning
	Waiting for input	The encoder is waiting for video signal input. Confirm that the video source power is on and a video signal is being output.
	Unable to encode	The encoder has detected video signal input, but its format is not supported.

⑤ Recording

This shows whether the video signal is being recorded to the selected external storage.

A pop-up message will appear if the mouse pointer is placed over the icon.

Indicator appearance	Pop-up message	Meaning
	Recording	The signal is being recorded to the selected storage.
	Not recording	Recording is off.
	Finishing FTP Uploads. 1 file(s) remaining...	Recorded files are being uploaded.
	Storage device unmounting	The storage is being unmounted. Wait until unmounting completes before disconnecting storage.
	Waiting for input	Input a valid HDMI source and start recording.
	Waiting for storage device	Connect storage and start recording.
	Storage device unmounted, please re-insert	The storage is not mounted. Reconnect it.
	Storage device full	The storage is full. Increase the available open space on the storage.
	Storage device is too slow. Try using a faster device or lowering the video bitrate	Data transfer to the storage device is not fast enough. Switch to a faster storage device or reduce the video transfer rate.
	FTP login failure	The user name/ password provided for the FTP server is invalid.
	FTP server storage full	The FTP server is full. Increase the available open space on the server.

4 - Using Streaming Dashboard

⑥ Audio Settings

Click the **Configure** button to open the encoder Audio Settings screen. (see "Encoder Audio Settings screen settings" on page 12)

⑦ Encoder Settings

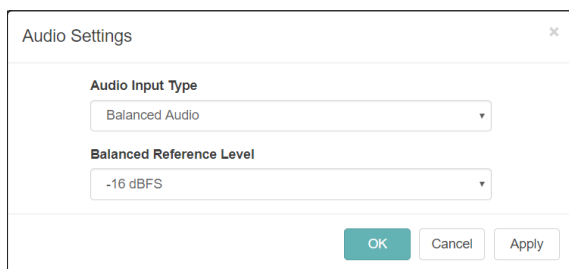
Click the **Configure** button to open the Encoder Settings screen. (see "Encoder Settings screen settings" on page 12)

⑧ Output Settings

Click the **Configure** button to open the Output Settings screen. (see "Output Settings screen settings" on page 14)

Encoder Audio Settings screen settings

Make audio input settings on this screen.



Audio Input Type

Use this to select the appropriate video input type.
Click this to open an option list.

Option	Meaning
HDMI-Embedded Audio (default)	Select audio embedded in an HDMI signal.
Balanced Audio	Select the analog balanced input.
Unbalanced Audio	Select the analog unbalanced input.

Balanced Reference Level

Set the reference level of the balanced input.
Click this to open a setting value list.

Settings: -16 dBFS (default), -14 dBFS, -9 dBFS

After completing settings on this screen, click one of the buttons below to save the settings.

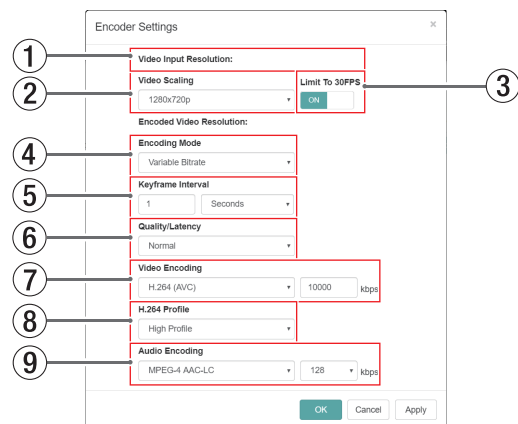
- Click the **OK** button to save the settings and close the settings screen.
- Click the **Apply** button to save the settings.

NOTE

Click the **Cancel** button to close the settings screen without saving the settings.

Encoder Settings screen settings

Use this screen to set the encoder functions of the unit.



① Video Input Resolution

This shows the resolution and frame rate of the video source connected to the HDMI IN connector.

The following resolutions can be input through the HDMI IN connector of the unit.

2160p30/p29.97/p25/p24/p23.98
1080p60/p59.94/p50/p30/p29.97/p25/p24/p23.98,
720p60/p59.94/p50, 576p50, 480p60, 480p59.94

② Video Scaling

This sets the encoded scaling resolution.

Click this to open a setting value list.

Settings: Passthrough, 320x180p, 480x270p, 640x360p,
720x480p, 720x576p, 960x540p, 1280x720p,
1920x1080p, 3840x2160p

NOTE

When "Passthrough" is selected, the same resolution as input is output.

③ Limit to 30 FPS

When this switch is set to "ON", the frame rate per second will be reduced by half when the input exceeds 30 FPS (default: OFF).

This enables limiting the streaming bit rate.

④ Encoding Mode

This set the video codec encoding mode.

Click this to open an option list.

Option	Meaning
Constant Bitrate	Fixed bit rate
Variable Bitrate (default)	Variable bit rate

4 - Using Streaming Dashboard

⑤ Keyframe Interval

- Seconds or frames can be used as the unit of length for the keyframe interval.

Click this to open an option list.

Options: Seconds (default), Frames

- Set the length of the keyframe interval.
To set this, click the ▲ and ▼ buttons that appear when the mouse is over the number or click the number and use a keyboard for input.

Range

Seconds: 0.25 - 16.5 (default: 1) in 0.25 intervals

Frames: 3 - 1000

NOTE

- For recommended values, see the operation manual of the RTMP destination.
- For low bit rate streaming, select a long interval.

⑥ Quality/Latency

Set the B frames per sub GOP for H.264.

Click this to open an option list.

Option	Meaning
High	3 B frames per sub GOP
Normal (default)	2 B frames per sub GOP
Low	1 B frame per sub GOP
Lowest	No B frames

NOTE

B frames have no effect with HEVC.

⑦ Video Encoding

- This sets the encoded video mode.

Click this to open an option list.

Options: H.264 (AVC) (default), H.265 (HEVC)

- Set the target bit rate to use in encoding.
To set this, click the ▲ and ▼ buttons that appear when the mouse is over the number or click the number and use a keyboard for input.

Range: 500 - 30000 kbps (default: 10000) in 1 kbps intervals

The following table shows recommended bit rates.

Recommended video bit rates for H.264 (AVC)

Encoded resolution	Optimal bit rate (kbps)	Highest quality bit rate (kbps)
3840x2160	5000	14500
1920x1080	3000	8500
1280x720	2500	7000

Recommended video bit rates for H.265 (HEVC)

Encoded resolution	Optimal bit rate (kbps)	Highest quality bit rate (kbps)
3840x2160	3000	10000
1920x1080	2000	7000
1280x720	1500	5000

NOTE

When the Quality/Latency item is set to High, the same low-quality bit rate is possible.

⑧ H.264 Profile/H.265 Profile

Use this to set the profile for the video mode set by the Video Encoding item.

Click this to open an option list.

H.264 Profile options:

High Profile, Main Profile, Baseline Profile

H.265 Profile options:

Main Profile

The H.264/H.265 level will be set automatically according to the selected profile.

H.264 level: 3, 3.1, 3.2, 4, 4.1, 5.1

H.265 level: 3.1, 4, 4.1, 5, 5.1

NOTE

The H.264/H.265 level is set based on the settings of the Video Scaling and Video Encoding items.

⑨ Audio Encoding


- Set the audio encoding type.

Option: MPEG-4 AAC-LC

- Set the audio encoding bit rate.


Options: 64 kbps, 96 kbps, 128 kbps (default), 192 kbps, 256 kbps, 320 kbps, 384 kbps, 512 kbps

After completing settings on this screen, click one of the buttons below to save the settings.

- Click the  button to save the settings and close the settings screen.

- Click the  button to save the settings.

NOTE

Click the  button to close the settings screen without saving the settings.

4 - Using Streaming Dashboard

Output Settings screen settings

Select streaming data destinations and protocols, including RTP/UDP unicast & multicast, RTSP, HLS and RTMP, on this screen.

NOTE

Multiple streaming destinations can be enabled at the same time. Streaming may be affected as the number of destinations increases, as more bandwidth on the network is required for each stream format. So you may need to reduce the number of options and use lower resolutions and bit rates if several streaming protocols are used.

After completing settings on this screen, click one of the buttons below to save the settings.

- Click the **OK** button to save the settings and close the settings screen.
- Click the **Apply** button to save the settings.

NOTE

Click the **Cancel** button to close the settings screen without saving the settings.

RTMP page

Make settings to stream to an RTMP server on this page.

RTMP Output

Click this area to turn output to the RTMP server on/off (default: Off).

Follow these procedures to set the output to an RTMP server.

1. Click "Generic RTMP" to open an output destination list. Select the output destination.

Option	Meaning
Generic RTMP (default)	Stream output using a generic RTMP protocol.
Wowza Streaming Engine	Stream output using the Wowza Streaming Engine.
Wowza Cloud	Stream output using Wowza Streaming Cloud.
YouTube	Stream output using YouTube.
DaCast	Stream output using DaCast.

NOTE

RTMP streaming can be turned on and off using the STREAM button on the front of the unit.

2. Select the protocol to use.
Options: rtmp: // (default), rtmps: //
3. Input the RTMP server URL.

NOTE

- Confirm that the Video Encoding item on the Encoder Settings page is set to "H.264 (AVC)".
- The status icon to the right of the URL is updated when connection succeeds or fails.

HLS page

Make settings to stream as an HLS server on this page.

HLS Server

Click this area to turn the HLS server function On/Off. (default: Off).

URL

This shows the HLS server URL.

Number of Segments

Set the number of segments (default: 10).

Segment Length

Set the segment length (default: 2 seconds).

NOTE

- Set a short segment length to make the waiting time shorter.
- Set a higher number of segments to enable more stream buffering for the client. This also controls the amount that stream viewers can seek.
- Set a segment length that can be equally divided by the Keyframe Interval set on the Encoder Settings page.

4 - Using Streaming Dashboard

Multicast page

Make settings to stream to a multicast address on this page.

The screenshot shows the 'Output Settings' dialog box. On the left is a sidebar with options: RTMP, HLS, Multicast (highlighted in blue), Unicast 1, Unicast 2, RTSP, File Recording, and FTP Upload. The main area is for Multicast settings. It includes a 'Multicast Output' toggle switch set to 'Off' with a 'Copy URL' icon. Below this is a protocol dropdown menu set to 'rtmp://', followed by input fields for 'IP Address', 'Port', and 'TTL'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

Multicast Output

Click this area to turn output to the multicast address on/off (default: Off).

Follow these procedures to set the output to a multicast address.

1. Select the protocol.
Select "rtmp://" to increase reliability or "udp://" to decrease waiting time.

NOTE

Each encoder must be set with a unique valid combination of multicast address and port number.

2. Input the multicast address.
Range: 224.0.0.1 - 239.255.255.255
3. Input the port number to set the network port for transmitting the multicast stream.
Range: 1024 - 49150
4. Set the TTL (Time to Live).
The recommended TTL value is "5".

Unicast 1/2 pages

Make settings to stream to a unicast address on this page.

In addition to streaming to a multicast address, this unit can simultaneously stream to two unicast addresses.

Settings can be made separately for each unicast address.

The screenshot shows the 'Output Settings' dialog box with 'Unicast 1' selected in the sidebar. The main area shows 'Unicast Output 1' toggle switch set to 'Off' with a 'Copy URL' icon. Below is a protocol dropdown menu set to 'rtmp://', followed by input fields for 'IP Address', 'Port', and 'TTL'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

Unicast Output 1/2

Click this area to turn output to the unicast address on/off (default: Off).

NOTE

When streaming between two UR-Stream units, make streaming settings on the Decoder Stream Settings screen. (see "Decoder Stream Settings screen settings" on page 18)

Set this when outputting to a third-party decoder device.

Follow these procedures to set the output to a unicast address.

1. Select the protocol.
Select "rtmp://" to increase reliability or "udp://" to decrease waiting time.
2. Manually input the IP address of the third-party decoder device. (see "If a unit cannot be found using TASCAM DISCOVERY" on page 10)
3. Manually input the port number of the third-party decoder device. Set up the decoder device to receive on the same port number.

4 - Using Streaming Dashboard

RTSP page

Make settings to stream as an RTSP server on this page.

Output Settings

RTMP

HLS

Multicast

Unicast 1

Unicast 2

RTSP

File Recording

FTP Upload

RTSP Server ☐ Off [Copy URL](#)

URL: rtp://192.168.11.10:554/default

Stream Name Port

OK Cancel Apply

RTSP Server

Click this area to turn the RTSP server function On/Off. (default: Off).

URL

This shows the RTSP server URL.

Stream Name

Input the stream name (default: default).

Port

Input the port number (default: 554).

File recording page

Make settings for recording to external storage on this page. Video can be recorded to an SD card or USB storage.

Output Settings

RTMP

HLS

Multicast

Unicast 1

Unicast 2

RTSP

File Recording

FTP Upload

Record to External Storage ☐ Off

Filename

Current Storage Device: 9229-A888

Available Storage Devices

- SD: 9229-A888
- USB: 44E8-01A8
- SD: 9229-A888
- USB: FE6E-F56D

0 hours 55 minutes storage remaining @10000kbps

Recordings on Storage Device

OK Cancel Apply

Record to External Storage

Click this area to turn it On, enabling video to be recorded to an external storage device. The FAT32 file system is supported.

ATTENTION

If the input source is not normal and the INPUT indicator is blinking red, recording will not start even when set to On. Recording will start automatically when it becomes normal.

Filename

The default file name used for saving is "VID" when shipped new from the factory. Timestamps will be added to file names when saved to external storage.

Current Storage Device

This shows the storage currently selected for recording.

Available Storage Devices

This appears when both an SD card and USB storage are available. Use the drop-down menu to select the storage for recording.

The storage status shows the total of the used capacity and the available capacity, as well as the estimated remaining recording time at the current bit rate.

NOTE

- The FAT32 file system is supported.
- Timestamps will be added to file names when saved to external storage.

Recordings on Storage Device

Click to expand the menu and show a list of recorded files.

Click on any file names to download to your computer via the browser

FTP Upload page

Make settings for uploading to an FTP server on this page.

Files can be automatically uploaded to an FTP server after recording completes.

Output Settings

RTMP

HLS

Multicast

Unicast 1

Unicast 2

RTSP

File Recording

FTP Upload

Upload Recorded Files ☐ Off

FTP Server

Server Name or IP Address

Authentication

Username Password

FTP Filepath

Filepath

Delete file from storage after upload ☐ Off

Test Connection

FTP Upload History Clear History

OK Cancel Apply

Upload Recorded Files

Click this area to turn uploading to the FTP server on/off (default: Off).

FTP Server

Input the FTP server name and IP address.

Authentication

Input the user name and password.

FTP Filepath

Input the FTP file path.

Delete file from storage after upload

Click this to turn it "On" to erase recorded files from the external storage after FTP uploading completes (default: Off).

- Click the [Test Connection](#) button to check the connection with the FTP server.
- The FTP Upload History shows a confirmed record of files uploaded to the server.
- Click the [Clear History](#) button to delete the upload history.

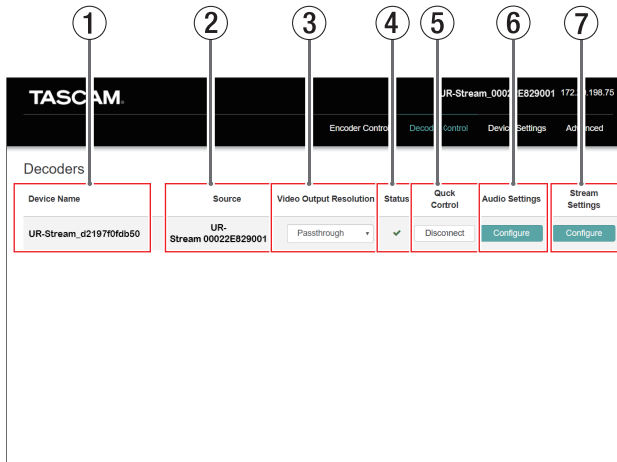
NOTE

FTP uploading is limited to recorded files. Previously recorded files cannot be uploaded to the FTP server.

Decoder Control page

The Decoder Control page can be used to control devices that have decoder functions enabled.

The names of devices are shown with the status of decoder functions and buttons to change settings.



① Device Name

This shows the name set in the Name item on the General page of the Device Settings screen. (see “General page” on page 20)

② Source

This shows the decoder source selection status.

- If a UR-Stream is the source, the device name will be shown.
- If a third-party decoder is the source, “Other” will be shown.
- If no source is set for the decoder, ✖ will be shown.

③ Video Output Resolution

This shows the decoder output resolution.

“A” will be shown if it is not supported by the connected display.

④ Status

This shows the video stream reception status.

If the decoder cannot receive, ✖ will be shown.

⑤ Quick Control

Click the button to start or stop decoder functions that have already been set.

The decoder must be set first before this function can be used.

If “Not Configured” is shown, the “Stream Settings” button must be clicked and the decoder function set before continuing.

- Click the “Disconnect” button to disconnect the decoder that is currently receiving video. (If the UR-Stream is connected by unicast, this will stop the encoder output.)
- To reconnect to a decoder that is not currently receiving video, click the button. The decoder will use the previous settings and connect. (If it is set for a unicast video stream from a UR-Stream, this will start the encoder output.)

⑥ Audio Settings

Click the button to open the decoder Audio Settings screen. (see “Decoder Audio Settings screen settings” on page 18)

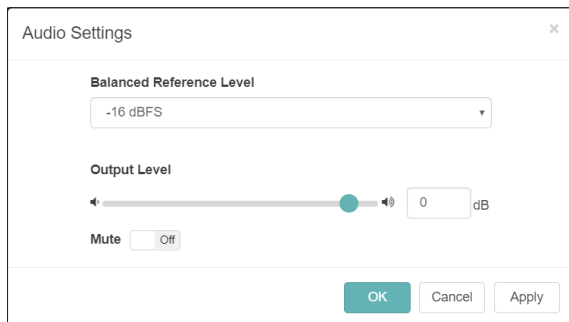
⑦ Stream Settings

Click the button to open the Decoder Stream Settings screen. (see “Decoder Stream Settings screen settings” on page 18)

4 - Using Streaming Dashboard

Decoder Audio Settings screen settings

Make audio output settings on this screen.



Balanced Reference Level

Use to set the balanced output headroom (difference between the maximum and reference levels).

Settings: -16 dBFS (default), -14 dBFS, -9 dBFS

Click this to open a setting value list.

Analog Output Level

Use to adjust the output level sent to each output connector.

To adjust the value, drag the slider left and right or click the number and enter the value with a keyboard.

Range: -72 dB - +6 dB

Analog Mute

Click this switch to turn it "On" and mute the analog output.

After completing settings on this screen, click one of the buttons below to save the settings.

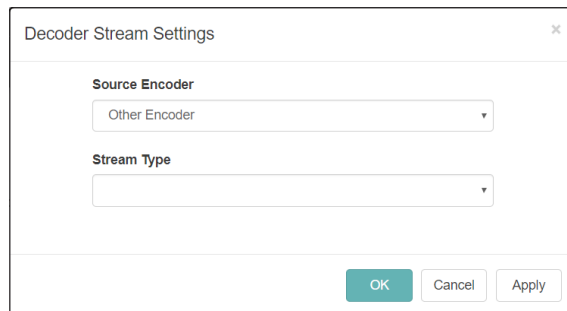
- Click the **OK** button to save the settings and close the settings screen.
- Click the **Apply** button to save the settings.

NOTE

Click the **Cancel** button to close the settings screen without saving the settings.

Decoder Stream Settings screen settings

Make decoder streaming input settings on this screen.



Source Encoder

Select the encoding source.

Click this to open a list of encoding sources.

Stream Type

Use to select the streaming type.

Click this to open an option list.

The content of the list shown depends on the setting of the Source Encoder item.

After completing settings on this screen, click one of the buttons below to save the settings.

- Click the **OK** button to save the settings and close the settings screen.
- Click the **Apply** button to save the settings.

NOTE

Click the **Cancel** button to close the settings screen without saving the settings.

Decoder stream settings

Decoder stream settings according to source type differences

Decoder stream settings differ according to the source type being used.

The following explains the necessary settings for decoding multicast and unicast streams from this unit and third-party encoder devices.

TASCAM Source, Multicast

- Source Encoder
Select the UR-Stream outputting the stream.
- Stream Type
Select "Multicast".
- Multicast Protocol
This shows the protocol set by the encoder.
- Multicast IP Address
This shows the IP address set by the encoder.
- Multicast Port
This shows the port number set by the encoder.

NOTE

Set the Multicast Output switch to "On" on the Multicast page of the Output Settings screen to enable multicast output for this unit. (see "Output Settings screen settings" on page 14)

TASCAM Source, Unicast

- Source Encoder
Select the UR-Stream outputting the stream.
- Stream Type
Select "Unicast".
- Protocol
Select the protocol to use.
- Port
Select the port number to use for receiving stream output encoded by the UR-Stream.
The recommended port numbers are even numbers from 1024 - 49150.

TASCAM Source, HLS

- Source Encoder
Select the UR-Stream outputting the stream.
- Stream Type
Select "HLS".
- URL
This shows the URL set by the encoder.

Third Party Source, Multicast

Set the third-party encoder device to output video data compressed as H.264 or H.265 on an MPEG-2 transport stream using RTP over UDP (rtp://) or Raw UDP (udp://).
Encode the audio in the stream as AAC.

Set the RTP multicast IP address and port number in the third-party encoder device.

Always use a valid multicast IP address.

The recommended values are from 239.0.0.0 - 239.255.255.249.

- Source Encoder
Select "Other Encoder".
- Stream Type
Select "Multicast".
- Multicast Protocol
Select the protocol suitable for the video source.
- Multicast IP Address
Input the IP address of the currently set video source.
Check the third-party encoder device for the currently set IP address.
- Multicast Port
Input the port number of the currently set video source.
Check the third-party encoder device for the currently set port number.

Third Party Source, Unicast

Set the third-party encoder device to output video data compressed as H.264 or H.265 on an MPEG-2 transport stream using RTP over UDP (rtp://) or Raw UDP (udp://).
Encode the audio in the stream as AAC.

- Source Encoder
Select "Other Encoder".
- Stream Type
Select "Unicast".
- Protocol
Select the protocol suitable for the video source.
- Port
Input the currently set unicast port number. Check the third-party encoder device for this information.

Third Party Source, RTMP

Follow these procedures to set up the target decoder to receive the RTMP playback type from the streaming server.
The RTMP streaming server must be streaming with H.264 video and AAC audio codecs.

- Source Encoder
Select "Other Encoder".
- Stream Type
Select "RTMP".
- URL Prefix
Confirm that "rtmp://" or "rtmps://" is selected.
- URL
Input the RTMP source URL.

Third Party Source, HLS

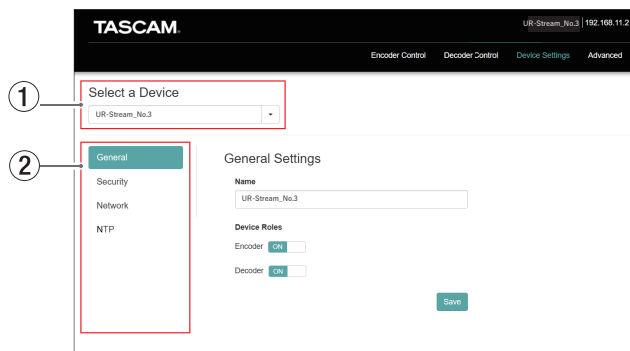
- Source Encoder
Select "Other Encoder".
- Stream Type
Select "HLS".
- URL
Input the HLS source URL.

4 - Using Streaming Dashboard

Device Settings screen

The Device Settings screen shows the status of all UR-Stream units on the current network and can be used to change their settings.

Click the **Save** button to change the settings of the UR-Stream selected with the Select a Device item.



① Select a Device

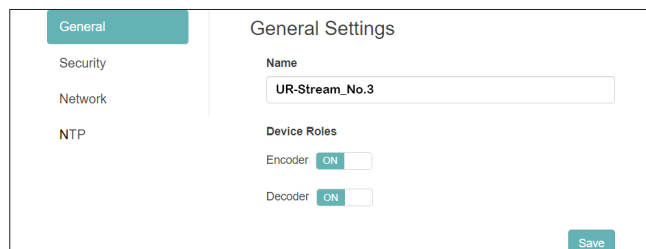
Select the name of the UR-Stream that will have its settings changed.

Click the ▼ button to show a list of all UR-Stream units connected to the network.

② Setting page display

Click the buttons to open the corresponding pages.

General page



Name

This shows the name of the UR-Stream that is displayed in Streaming Dashboard.

Click this area to make the cursor blink, enabling character input.

The default name when shipped new from the factory is "[model name]+[MAC address]".

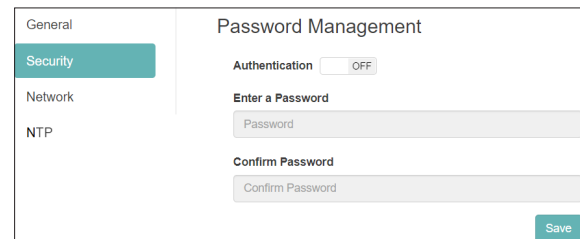
Device Roles

These turn the unit's encoder and decoder functions on and off.

Click a switch to change its on/off setting.

Security page

Manage the password on the Security page.



Setting the password

1. Click the Authentication switch to set it to "ON".
2. Click the Enter a Password input field, making the cursor blink.
Input the password.
Uppercase and lowercase letters and numbers can be used.
The maximum number of characters is 8.

NOTE

The password is blank when unit is shipped new.

If no password is set, settings will not be protected.

3. Click the Confirm Password input field, making the cursor blink.
Input the password again.
4. Click the **Save** button to save the password.
5. Click the Authentication switch to disable the password.

NOTE

If the password is forgotten, authentication can be disabled by restoring the unit to its default settings.

See "5 - Hardware Reset Function" on page 23 for how to restore default settings.

Network page

Use the Network page to set network functions.

Address Assignment

Set the IP address setting mode.

Click the selected button to change the setting mode.

Option	Meaning
DHCP (default)	The IP Address, Subnet Mask, Gateway and DNS Address items on the Network page will be set automatically. Use this setting if there is a DHCP server on the network.
Static	Set the IP Address, Subnet Mask, Gateway and DNS Address items manually on the Network page.

IP Address

This shows the current IP address set on the device.

Clicking the address area when the Address Assignment item is set to "Static" will cause the cursor to blink and make changing the address possible.

Subnet Mask

This shows the current subnet mask set on the device.

Clicking the address area when the Address Assignment item is set to "Static" will cause the cursor to blink and make changing the address possible.

Gateway

This shows the current gateway set on the device.

Clicking the address area when the Address Assignment item is set to "Static" will cause the cursor to blink and make changing the address possible.

DNS Address (Optional)

This shows the current DNS server address set on the device.

Clicking the address area when the Address Assignment item is set to "Static" will cause the cursor to blink and make changing the address possible.

NOTE

Clicking the **Save** button when the Address Assignment item is set to "Static" will cause the following pop-up message to appear.

NTP page

Make NTP server settings on the NTP page.

NTP SERVER

Edit the NTP server name.

The default name when shipped new from the factory is "time.nist.gov".

TIME ZONE

Select the time zone appropriate for your use situation.

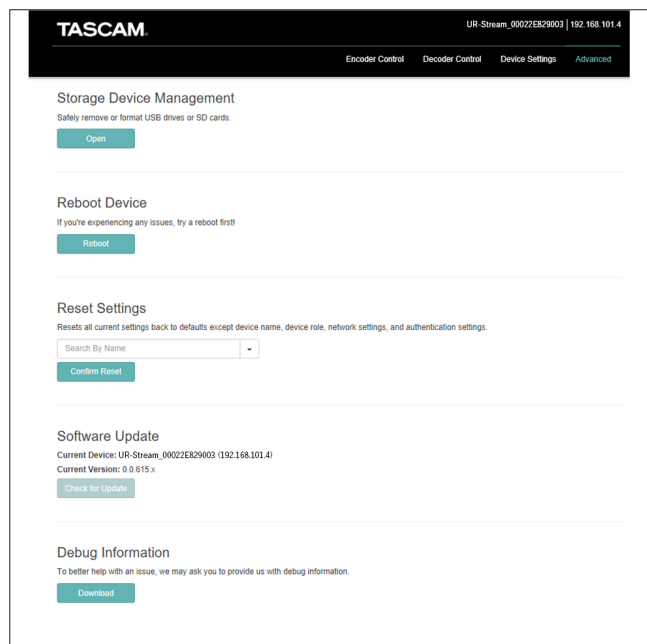
NOTE

Time zones that use daylight savings will be adjusted automatically.

4 - Using Streaming Dashboard

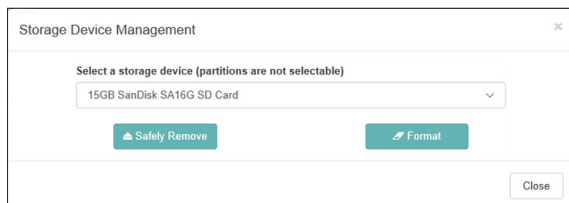
Advanced page

Use the Advanced page to restart a unit or update its firmware, for example.



Storage Device Management

Click the **Open** button to open the Storage Device Management screen which allows the safe disconnection and formatting of external storage.



Safe disconnection of external storage

1. Select the external storage to be disconnected.
2. Confirm that the RECODE indicator is unlit, and click the **Safety Remove** button.

A confirmation pop-up message appears.

3. Click the OK button to disconnect.
4. After confirming disconnection, remove the external storage.
Doing this prevents damage to files.

Formatting external storage

1. Select the external storage to be formatted.
2. Confirm that the RECODE indicator is unlit, and click the **Format** button.
A confirmation pop-up message appears.
3. Click the Yes button to start formatting.

Reboot Device

Click the **Reboot** button to restart the UR-Stream set as the current device.

Reset Settings

This resets the settings on the Encoder Control and Decoder Control screens to their factory default values.

1. Click this area to show the names of all UR-Stream units connected to the network.
2. Select the UR-Stream that will be reset to its default settings.
3. Click the **Confirm Reset** button.
The selected UR-Stream will restart and be reset to its default settings.

NOTE

The settings on the Device Settings screen will not be changed.

See "5 - Hardware Reset Function" on page 23 for restoring the settings on the Device Settings screen to their default settings.

Software Update

Use this to update the firmware of a UR-Stream connected to Streaming Dashboard.

This Current Device and Current Version show the name and firmware version of the selected UR-Stream.

To update the firmware of the selected UR-Stream, click the **Check for Update** button.

NOTE

- If a new firmware version has been released, an update confirmation screen will appear.
- Depending on the size of the update file, connecting an SD card to complete the update might be requested.

Debug Information

Click the **Download** button to download a file with debugging information related to the unit's settings.

This might be helpful for explaining issues when consulting with TASCAM customer support.

5 - Hardware Reset Function

Conduct a hardware reset to reset all the network settings on the Device Settings screen and all the settings shown in Streaming Dashboard, including device names.

1. Turn the device off.
2. Press and hold the STREAM button.
3. Turn the device on while continuing to press the STREAM button.
4. Keep pressing the STREAM button for at least 30 seconds while the power is on.
When resetting completes, all indicators except the POWER indicator will blink five times.
5. After a hardware reset of a device completes, the following values will be set to their defaults.

Default value table

Settings screen		Setting item		Default value
Encoders screen	Audio Settings screen	Audio Input Type		HDMI with Embedded Audio
	Encoder Settings screen	Video Input Resolution		Auto-Detected
		Video Scaling		Passthrough
		Limit to 30 FPS		OFF
		Encoding Mode		Variable Bitrate
		Keyframe Interval		1 second
		Quality/Latency		Normal
		Video Encoding		H.264 (AVC)
				10000 kbps
		Profile		High Profile
		Audio Encoding		MPEG-4 AAC-LC
				128 kbps
	RTMP page	RTMP Output		OFF
	HLS page	HLS Server		OFF
		Number of Segments		10
		Segment Length		2 seconds
	Multicast page	Multicast Output		OFF
	Unicast pages	Unicast Output A		OFF
		Unicast Output B		OFF
	RTSP page	RTSP Server		OFF
		Stream Name		default
		Port		554
File recording page	Record to USB		OFF	
	Filename		VID	
FTP Upload page	Upload Recorded Files		OFF	
	Delete file from storage after upload		OFF	
Decoders screen	Audio Settings screen	Balanced Reference Level		-16 dBFS
		Volume Output Level		0 dB
		Mute		OFF
	Decoder Stream Settings screen	Source Encoder		Other Encoder
Device Settings screen	General page	Name		[Model name]+[MAC address]
		Device Roles	Encoder	ON
			Decoder	ON
	Network page	Address Assignment		DHCP

6 - Specifications

Inputs and outputs

Video inputs and outputs

HDMI IN/OUT ports

Connector: Type A receptacle

Input resolutions

2160p30/p29.97/p25/p24/p23.98, 1080p60/p59.94/p50/
p30/p29.97/p25/p24/p23.98, 720p60/p59.94/p50, 576p50,
480p60, 480p59.94

Frame rate limiting

On/Off

Encode scaling resolution

Passthrough, 320x180p, 480x270p, 640x360p, 720x480p,
720x576p, 960x540p, 1280x720p, 1920x1080p, 3840x2160p

Encoding formats

H.264, H.265

Encoding bit rates

500 kbps - 30 Mbps

Bit rate control

Variable, Constant

Key frame interval

Seconds: 0.25 - 16.5 (default: 1) in 0.25 intervals
Frames: 3 - 1000

Video streaming

Supported protocols*: RTMP, RTSP, HLS, RTP, UDP

* H.265 format streaming only supports RTP and UDP.

Audio inputs and outputs

ANALOG IN connectors (balanced)

Connectors: Euroblock 3.81mm pitch

Nominal input levels:

+4 dBu (1.23 Vrms, when Ref.Level set to other than -9 dBFS)

+6 dBu (1.55 Vrms, when Ref. Level set to -9 dBFS)

Maximum input level (switchable):

+15 dBu (4.36 Vrms, Ref. Level: -9 dBFS)

+18 dBu (6.16 Vrms, Ref. Level: -14 dBFS)

+20 dBu (7.75 Vrms, Ref. Level: -16 dBFS)

Input impedance: 10 k Ω or higher

ANALOG IN connectors (unbalanced)

Connector: 3.5mm (1/8") stereo mini jack

Input impedance: 10 k Ω

Minimum input level: -10 dBV (0.316 Vrms)

Maximum input level: +6 dBV (2.0 Vrms)

ANALOG OUT connectors (balanced)

Connectors: Euroblock 3.81mm pitch

Nominal output levels:

+4 dBu (1.23 Vrms, when Ref.Level set to other than -9 dBFS)

+6 dBu (1.55 Vrms, when Ref. Level set to -9 dBFS)

Maximum output level (switchable):

+15 dBu (4.36 Vrms, Ref.Level: -9 dBFS)

+18 dBu (6.16 Vrms, Ref.Level: -14 dBFS)

+20 dBu (7.75 Vrms, Ref.Level: -16 dBFS)

Output impedance: 200 Ω or lower

ANALOG OUT connectors (unbalanced)

Connector: 3.5mm (1/8") stereo mini jack

Output impedance: 200 Ω

Minimum output level: -10 dBV (0.316 Vrms)

Maximum output level: +6 dBV (2.0 Vrms)

- 0 dBu=0.775 Vrms

Control input/output

Ethernet/PoE+ connector

Connector: RJ-45

Transmission protocol: TCP/IP, UDP, HTTP

Gigabit Ethernet standard: 1000BASE-T (IEEE 802.3ab)

Cables: category 5e or faster STP cables

USB port

Connector: USB A-type 4-pin

Protocol: USB 3.0

Audio performance

Built-in AD converter performance

Distortion (THD+N)

0.002%

S/N ratio

102dB

Built-in DA converter performance

Distortion (THD+N)

0.00035%

S/N ratio

130dB

Analog input - digital (HDMI) output performance (AAC encoding/decoding 512 kbps)

Frequency response

20 Hz - 16.5 kHz: ± 0.5 dB (JEITA)

Distortion (THD+N)

0.008% or less (Full scale -0.5 dB, JEITA)

S/N ratio

94 dB or higher (JEITA)

Dynamic range

95 dB or higher (JEITA)

Channel crosstalk

90 dB or higher (JEITA)

Digital (HDMI) - analog output performance (AAC encoding/decoding 512 kbps)

Frequency response

20 Hz - 16.5 kHz: ± 0.5 dB (JEITA)

Distortion (THD+N)

0.007% or less (Full scale -0.5 dB, JEITA)

S/N ratio

Balanced output: 113 dB or higher (JEITA)

Unbalanced output: 109 dB or higher (JEITA)

Dynamic range

96 dB or higher (JEITA)

Channel crosstalk

100 dB or higher (JEITA)

Note: JEITA indicates compliance with JEITA CP-2150

Other

Power

PoE Plus Class 4

TASCAM PS-P1220E AC adapter (sold separately)

Power consumption

12.2W

Dimensions

214 × 44.5 × 136.1mm (W x H x D, including protrusions)

Weight

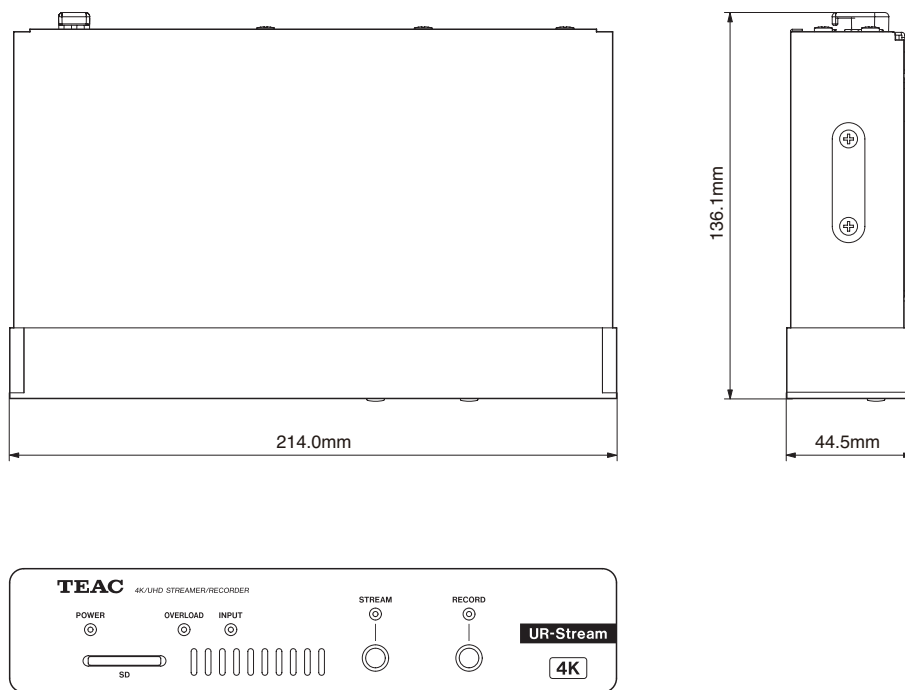
850g

Operating temperature range

0 - 40°C (32 - 104°C)

6 - Specifications

Dimensional drawings



Main unit

- Illustrations in this manual might differ in part from the actual product.
- Specifications and external appearance might be changed without notification to improve the product.

TEAC

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