SRT introduction

SONY

Version 1.0

C O N T E N T S

1. Overview

This document explains typical procedures and tips for the SRT connectivity when using Sony Color Video Camera SRG-A40/SRG-A12. Hereinafter, it is called as "the camera".
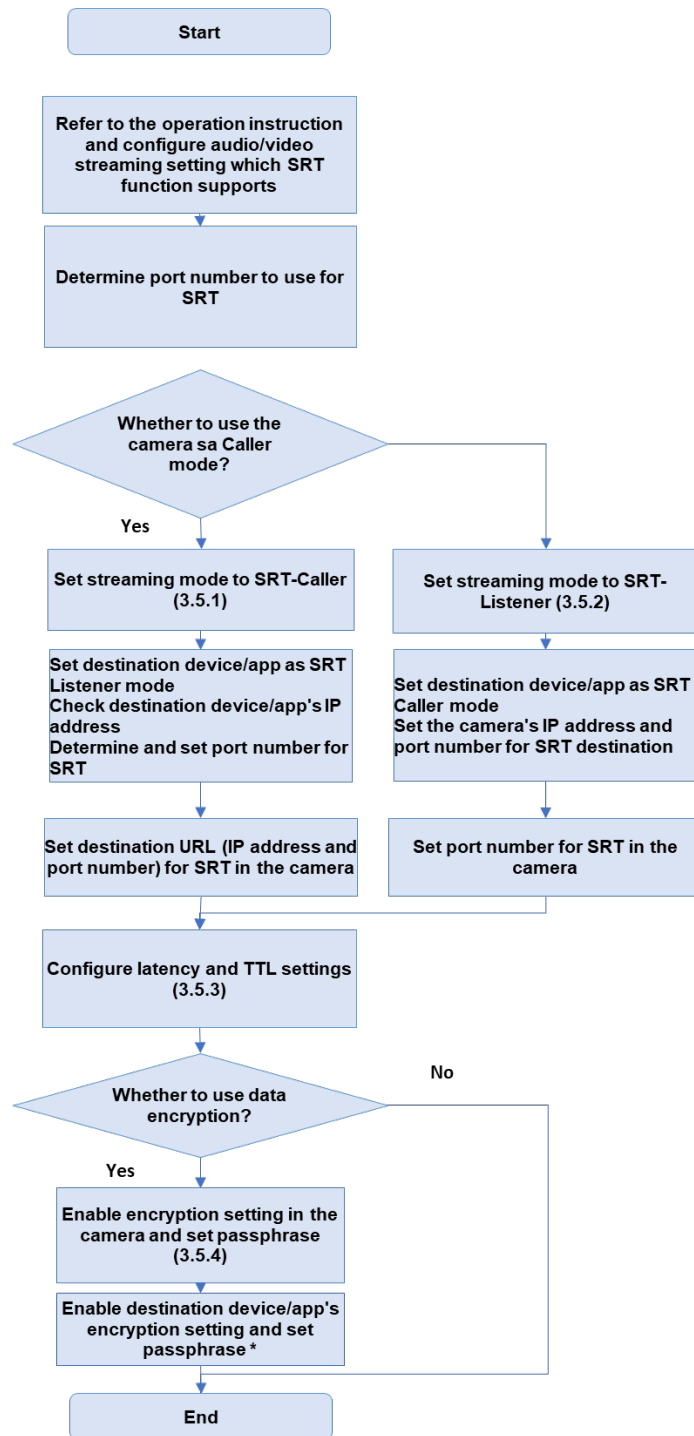

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2. Flowchart

The following flowchart shows an outline of the procedure for enabling the SRT connectivity function of the camera described in the next chapter.

*Please refer to the manual of devices/apps to be connected.

3. Pre-configuration Settings

This chapter describes some pre-configuration settings you will need before activating the SRT function for the camera.

3.1. Set IP address by using the RM-IP Setup Tool

For IP communication, appropriate IP address needs to be set to the camera. You can use RM-IP Setup Tool to assign IP address to the camera. Please refer to the RM-IP Setup Tool Guide for more details.

[Note] DHCP setting cannot be enabled from the RM-IP Setup Tool.
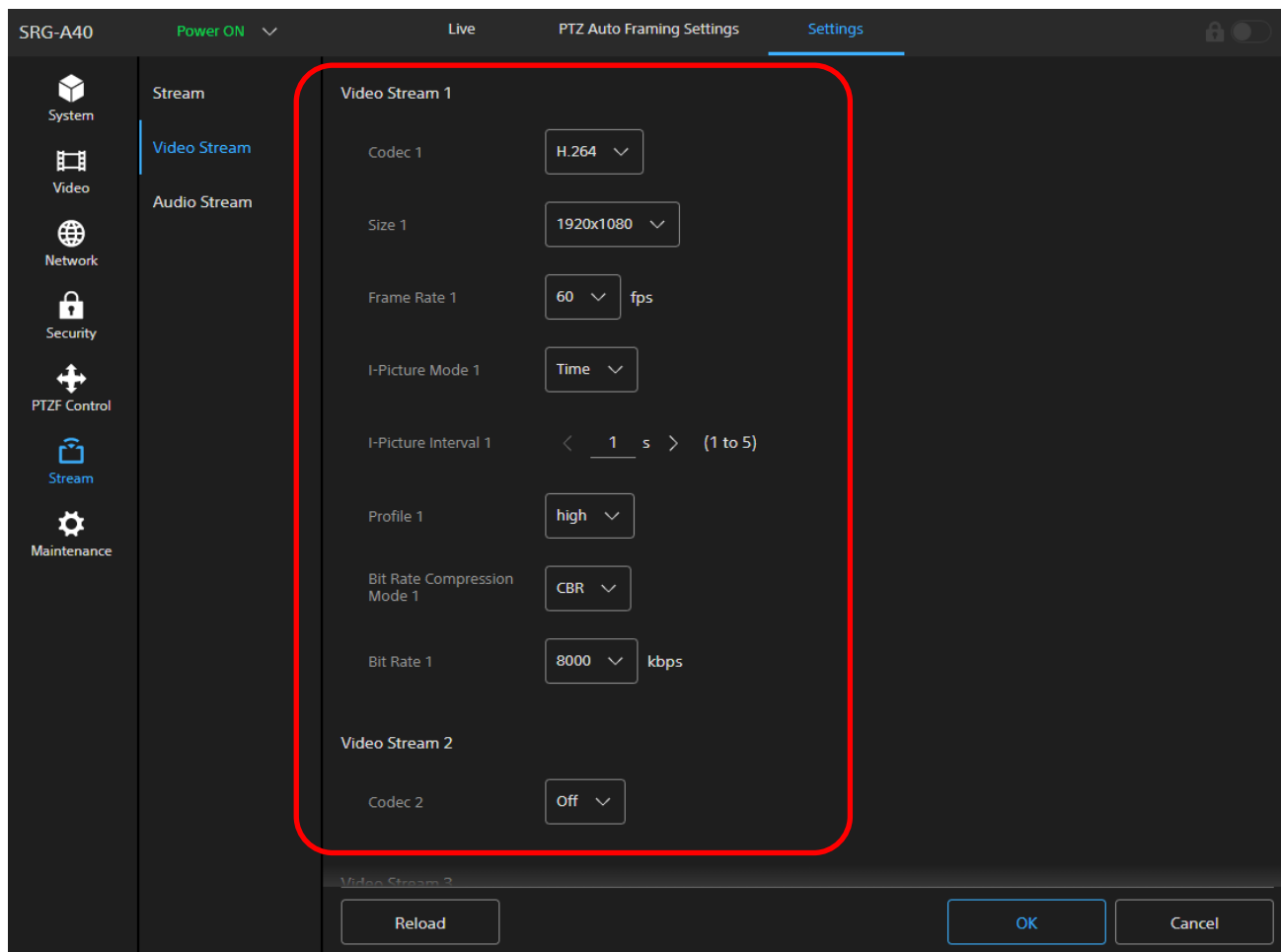
3.2. Setting the initial password

Following the Operation Instruction, initial password setting is necessary to enable HTTP access of the camera etc..

You can refer to the following section in the Operation Instuction of the camera.
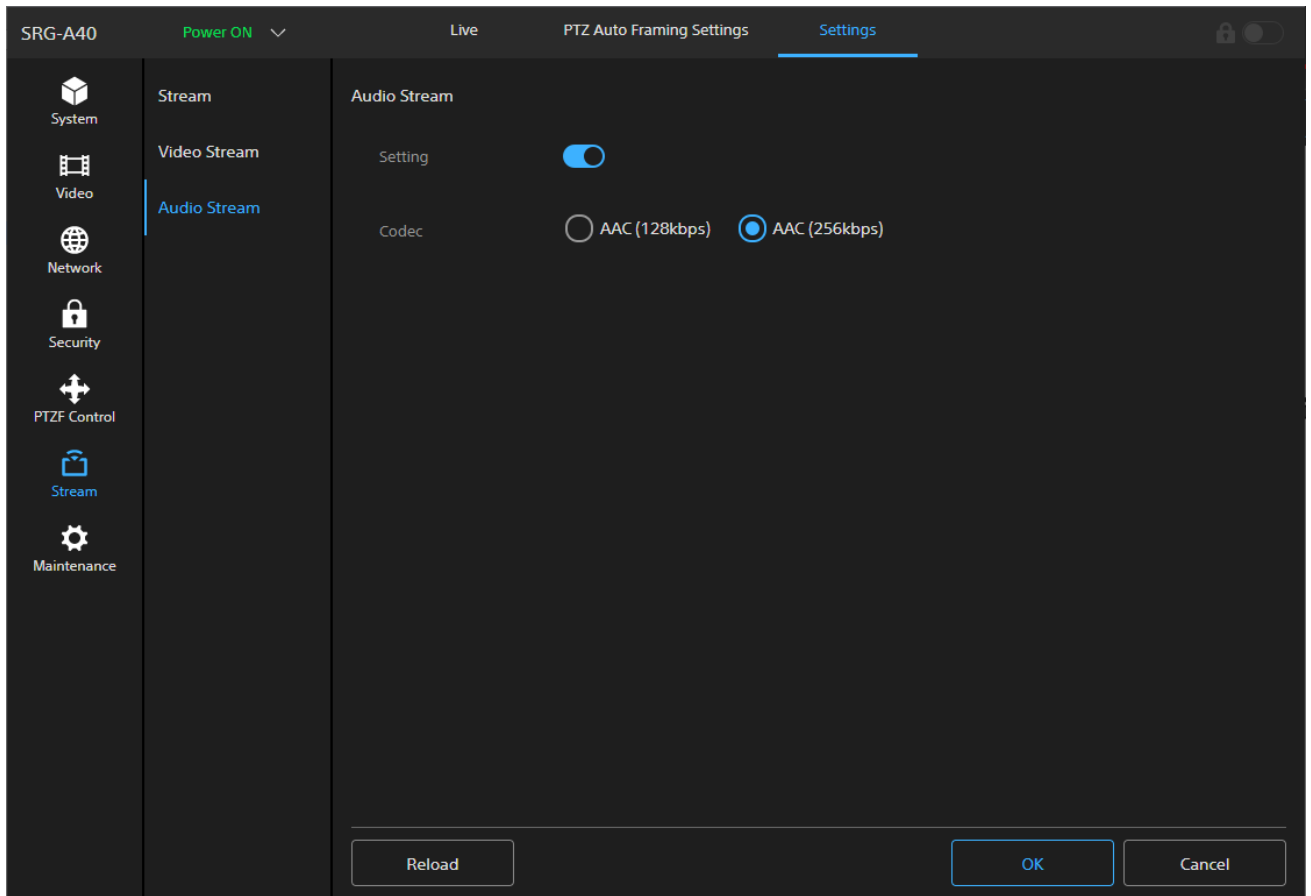[Accessing the Camera from a Web Browser] > [Setting the Initial Password]

3.3. Camera's Video Codec Setting

For SRT function, the Video Stream 1 channel is only available for SRT streaming. Only [H.264] can be selected as Codec 1 setting.

3.4. Audio setting

Please configure audio setting in [Stream] > [Audio Stream] tab in Web App Menu accordingly.

3.5. SRT Setting

Before starting SRT transmission, port number to be used and whether the camera is set to Caller mode or Listener mode needs to be determined.

Caller means that the camera initiates the transmission, while Listener means that the camera waits for it.

Whether it is Caller or Listener has nothing to do with whether it transmits data (audio/video) and vice versa. In order to have correct SRT setting, one side has to be set as Caller mode, while the other side is to be set as Listener mode.

In general, a device or an app inside a firewall is to be set as the Caller and a device or an app having global IP address, such as a server equipment, is to be set as the Listener.

Both the Caller mode and the Listener mode are supported by the camera. If the camera is set as the Caller, set the destination device/app as the Listener. If the camera is set as the Listener, set the

destination device/app as the Caller.

Some device might support either the Caller or the Listener only. In that case, set the camera's mode properly to establish the connection.

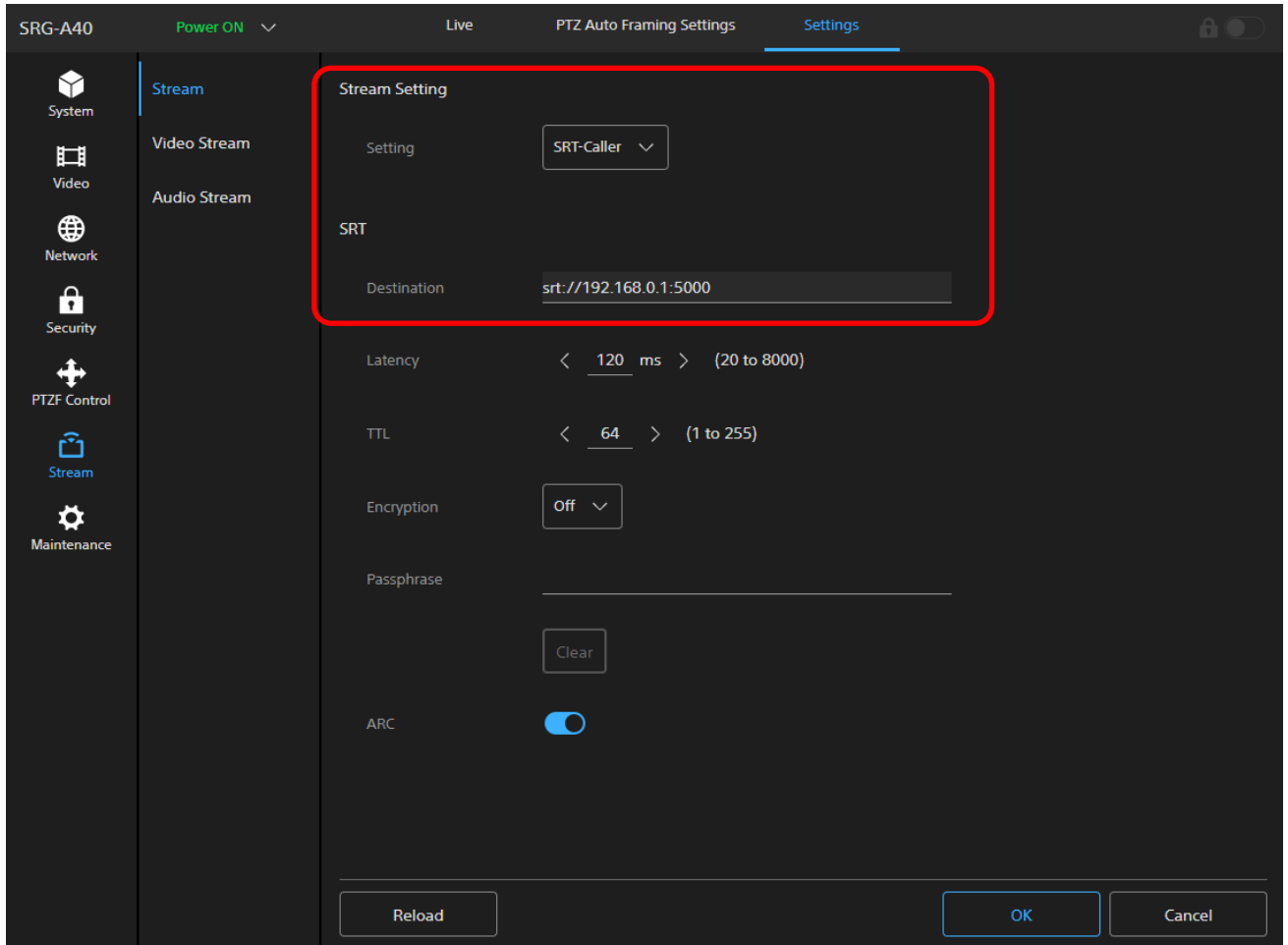Please refer to the manual of a device or an app to be connected as well.

Regarding the SRT connection environment, please refer to the information announced from SRT Alliance below.
https://www.srtalliance.org/srt-deployment-guide/

3.5.1. When setting camera as the Caller

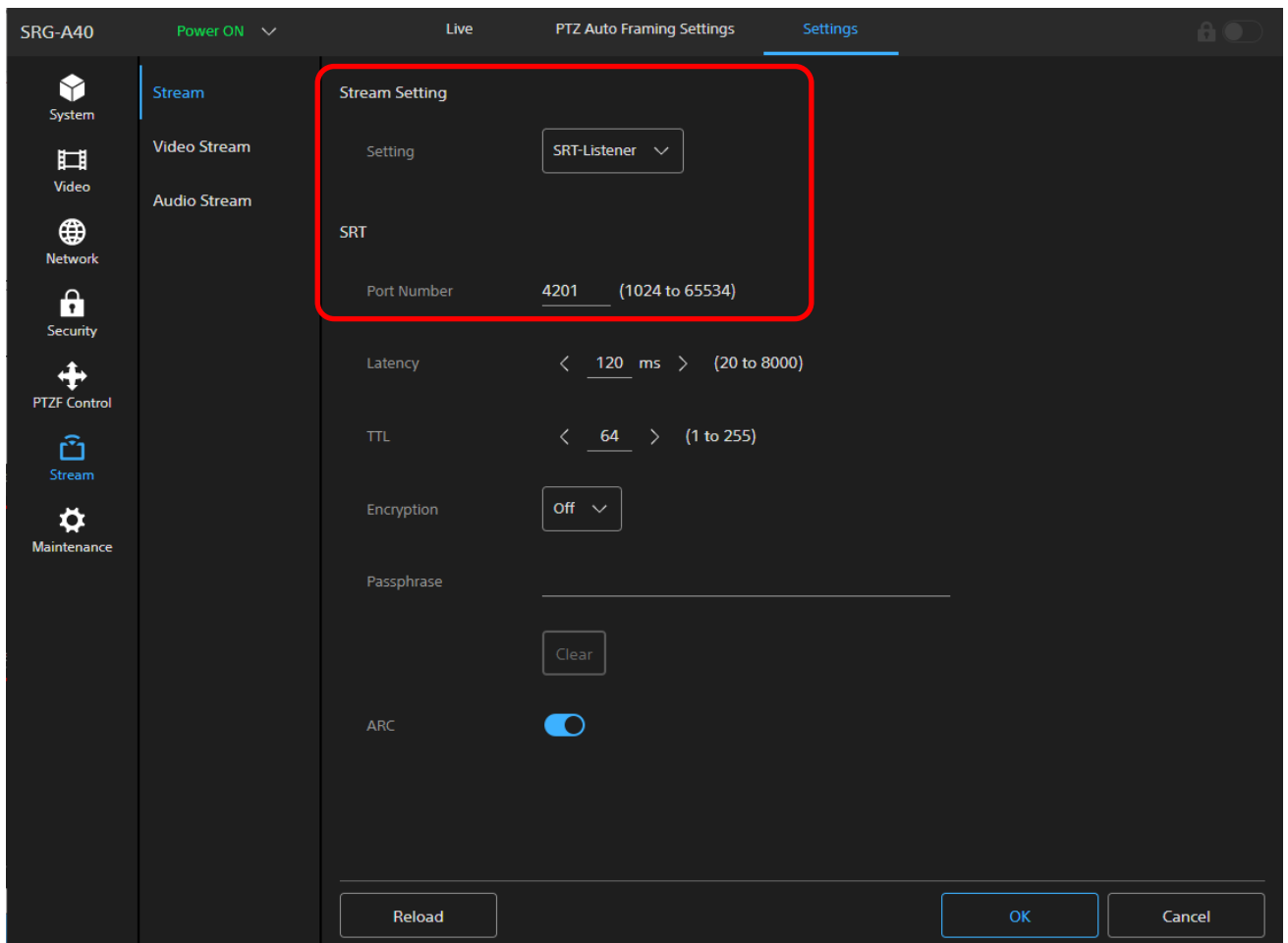Open [Stream] > [Stream] tab of the Web App Menu, and select [SRT-Caller] in [Stream Setting] > [Setting].

Set the prefix letters of "srt://" followed by a destination IP address to connect to and [:] followed by the port number in [SRT] > [URL]. Press [OK] to complete the setting.

3.5.2. When setting camera as the Listener

Open [Stream] > [Stream] tab of the Web App Menu and select [SRT-Listener] in [Stream Setting] > [Setting].

Set the port number of the camera in [SRT] > [Port Number]. Press [OK] to complete the setting.
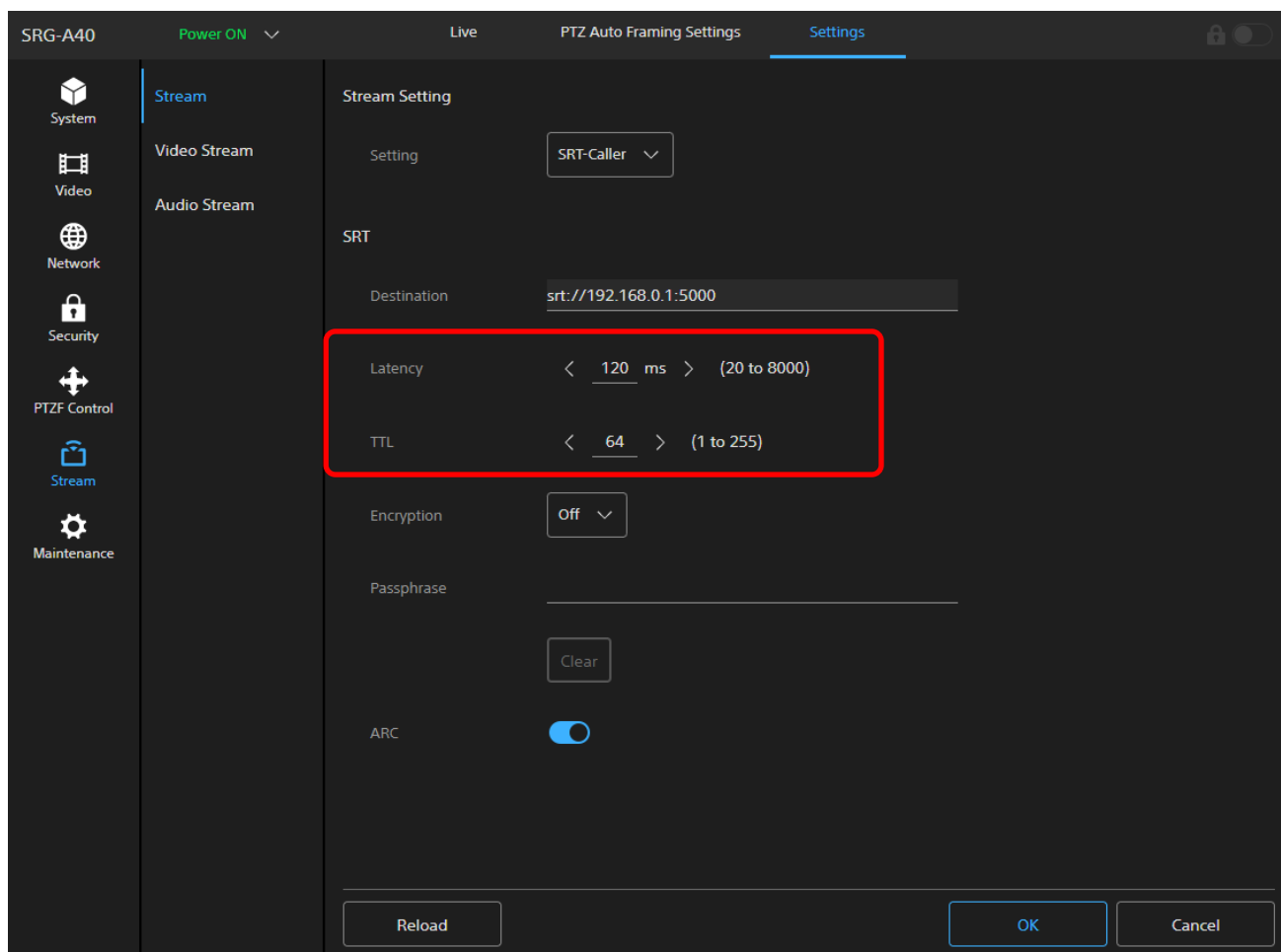

3.5.3. Setting of Latency and TTL

Set [Latency] and [TTL] upon the transmission environment.

It is recommended to set enough latency according to RTT from the camera to the destination measured in advance.

For the recommended setting value, please refer to the information announced from SRT Alliance below.

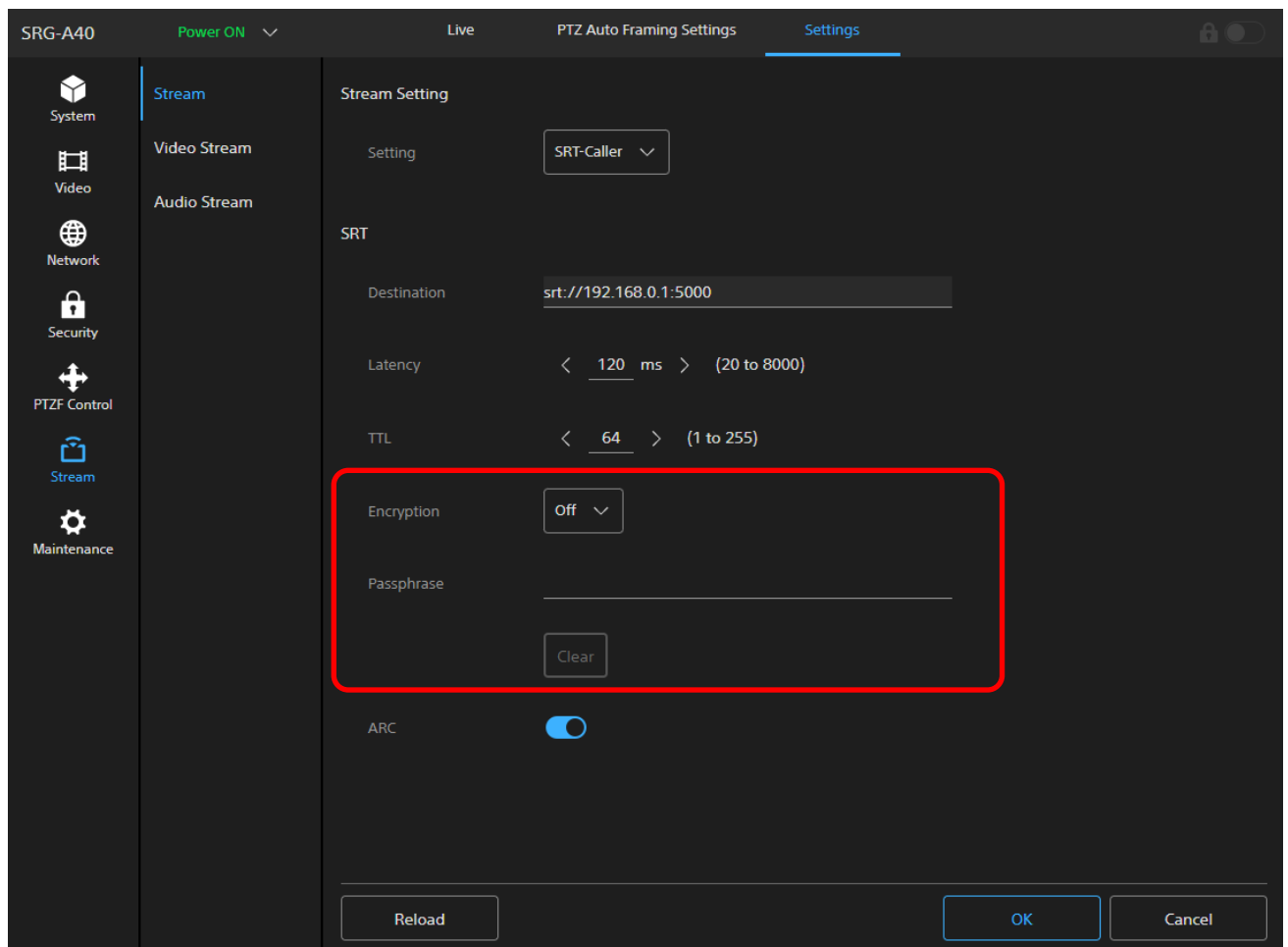https://www.srtalliance.org/srt-deployment-guide/

3.5.4. Encryption setting

Encryption setting can be used when transmitted data needs to be encrypted by a passphrase.
Select the key length of the encryption from [SRT] > [Encryption]. If encryption is not required, please select [Off].
Set the passphrase to use in [SRT] > [Passphrase]. It is necessary to press [Clear] button to change the prior setting and then set new passphrase.
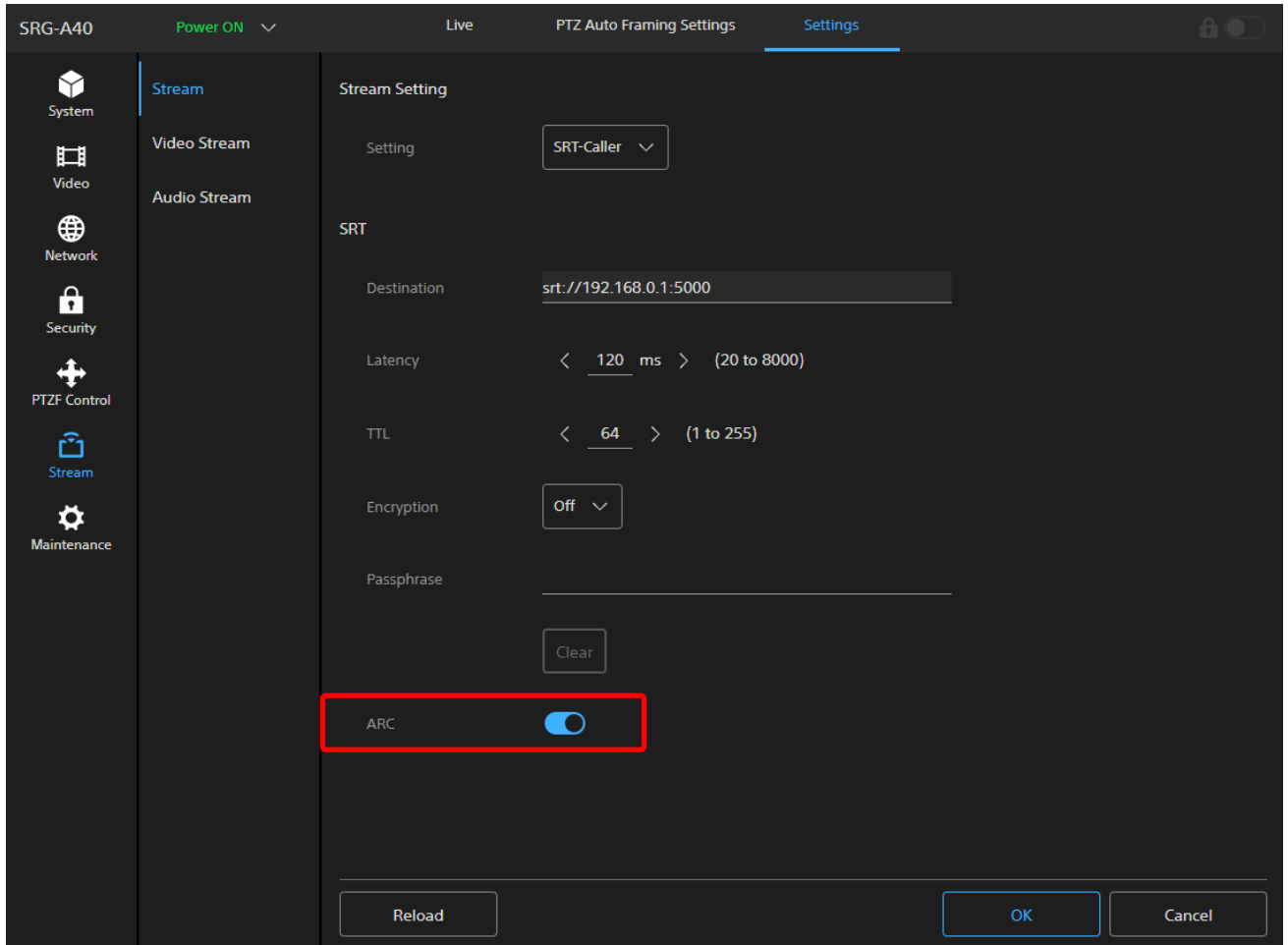
If encryption is enabled, set the same key length and the passphrase to the destination device/app.

3.5.5. Adaptive Rate Control (ARC) setting

In order to enable the Adaptive Rate Control setting, go to [SRT] > [ARC], turn the slide switch to the right and press [OK] to complete the setting.
When the ARC is enabled, discontinuation and/or corruption of the displayed video due to network congestion can be reduced.

4. Troubleshooting

This chapter describes how to manage problems may occur for SRT function of the camera.

- Unable to connect

  [Case 1] Check the network connection.

  [Case 2] Check the Caller/Listener mode. If the camera is the Caller, make sure the destination device/app as the Listener. If the camera is the Listener, set the destination device/app as the Caller.

  [Case 3] Check the passphrase setting of the destination device/app. It must be the same as what is configured on the camera.

  [Case 4] There is a chance that the Video Stream setting, such as image size, may not be supported by the destination device/app. Adjust the Video Stream setting on the camera so that it is compatible with the destinatino device/app.

- The displayed video is discontinued and/or corrupted

  [Case 1] The network might be unstable. Try using a more stable connection, such as wired connection.

  [Case 2] The [Latency] setting may be outside the recoomended range of what is proposed by SRT Alliance. Please refer to the information announced from SRT Alliance for the recommended setting value below.

  https://www.srtalliance.org/srt-deployment-guide/

- Repeated cycle of poor and good image quality display

  The ARC function may have a chance to overreact towards the stable and unstable network connection. Please try the following in such case:

  - Try using a more stable network connection
  - Try using a faster network connection
  - Select lower bitrate setting in [Stream] > [Stream] > [Video Stream 1] > [Bit Rate1]
  - Disable the ARC setting by turning the ARC slide switch to the left
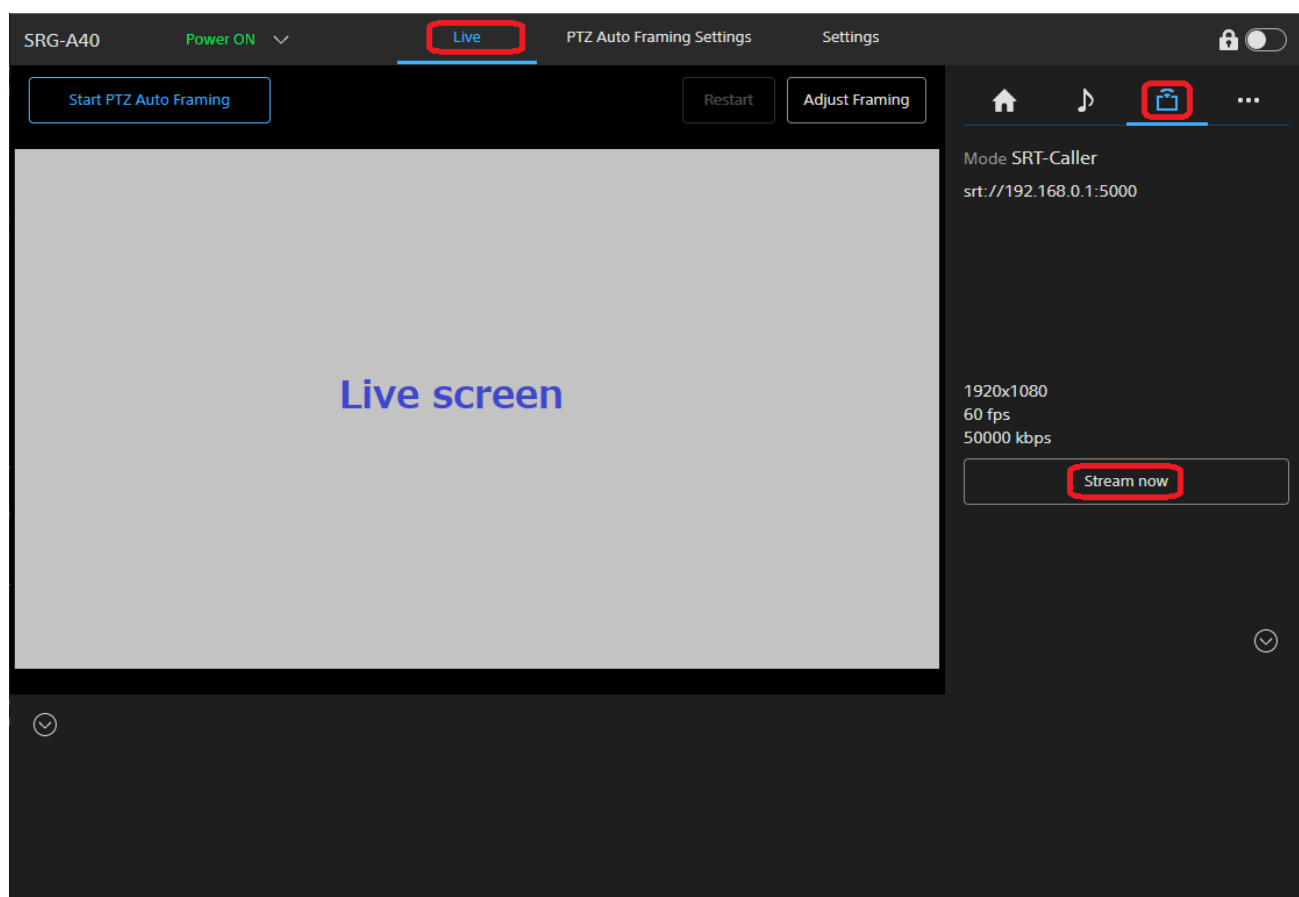
5. Appendix

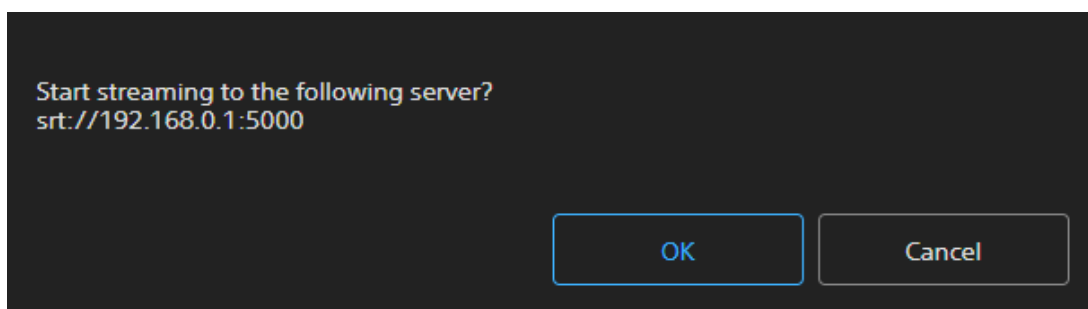## 5.1. How to start/stop SRT transmission when the camera is set as the Caller

Starting/stopping the SRT transmission when the camera is set as the SRT-Caller can be controlled using Web App Live Operation Screen. Please perform the SRT-Listener mode setting in the destination device/app in advance.

To open the Live Operation Screen, use a web browser and enter the following address, replacing <IP Address> with the camera's IP address.
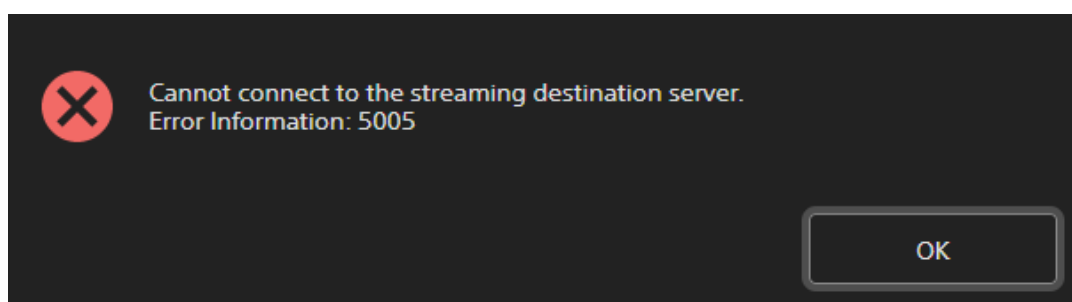
```
http://<IP Address>/index.html
```


Press ⬚ to display streaming setting items in the camera's operation section and then press [Stream now] button to start SRT transmission. It will prompt SRT transmission confirmation dialog. Press [OK] to start the transmission.
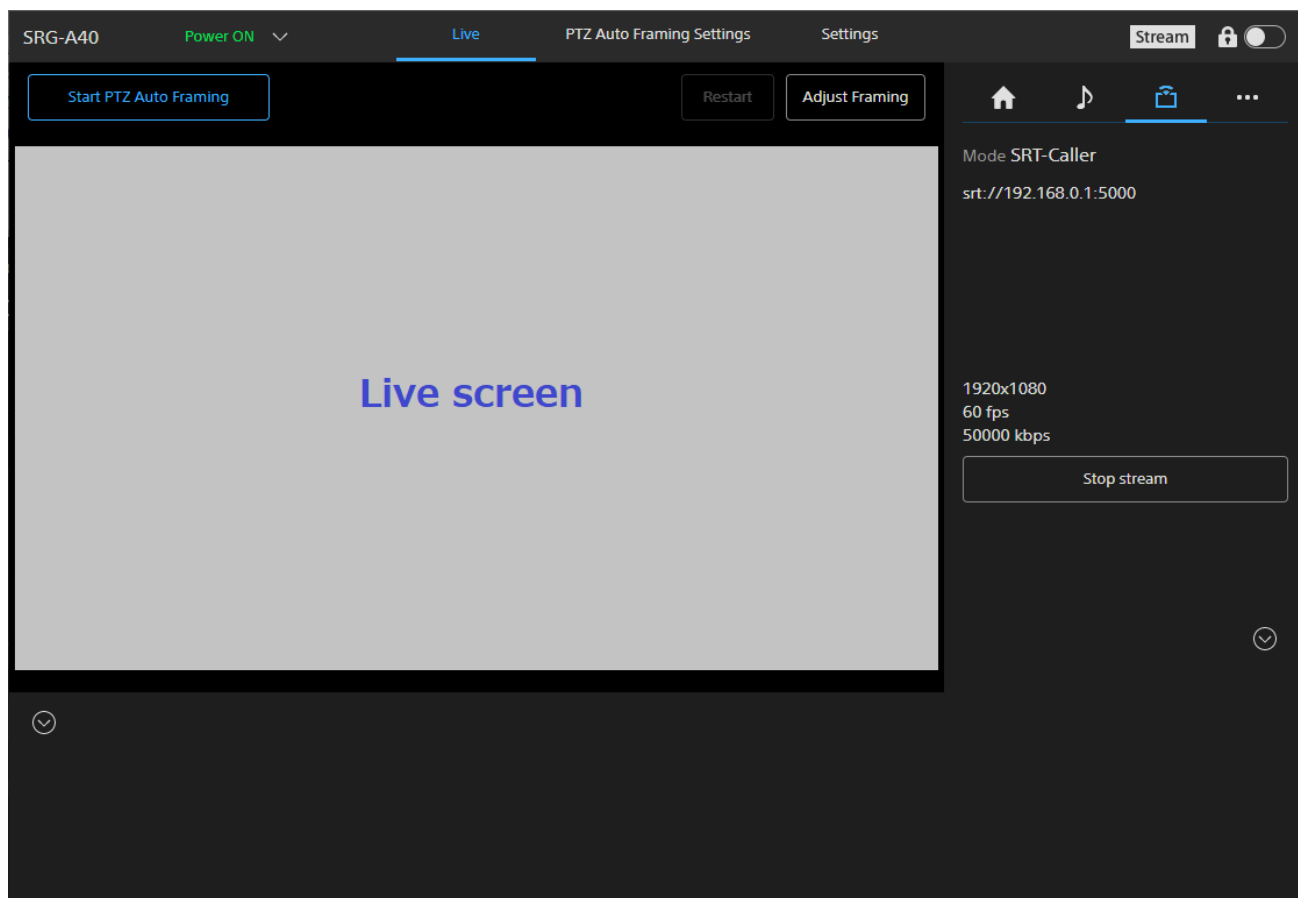
If the transmission starts successfully, Stream mark is displayed in the upper right side of the Live Operation Screen.

If the transmission is not successful, the following error dialog is displayed. Press [OK] to confirm and then review the SRT configuration of both the camera and the destination device/app and network environment etc..

To stop the SRT transmission, press [Stop stream] button. It will prompt the confirmation dialog. Press [OK] to stop the transmission.

If the transmission is successfully stopped, Stream mark in the upper right side of the Live Operation Screen will be dissappered.

Revision History

Date	Revision	Description
2023/05/31	1.0	First release

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