

User's Guide

Preface

- [Operating Environment](#)
- [Safety and Health Precautions](#)
- [Compliance](#)
- [Device Disposal](#)

Operating Environment

- Ensure that the environment corresponds to the conditions mentioned below:
 -  Only use at altitude not exceeding 2000 meters.
 -  Only use in not-tropical climate regions.
 - Ambient operating temperature (with internal battery): -5°C to 45°C (-5°C to 35°C when unit placed in backpack).
 - Ambient operating temperature (with DC adapter): 0°C to 40°C (for the DC adapter).
 - Ambient operating humidity: 10% to 85% (no condensation).



Important

Operating the unit out of these ranges may cause damage and void the warranty.

- Protect the unit against rain, dust, and shocks.
- Avoid long exposure to direct sunlight.
- Do not obstruct the air inlets and outlets.



Caution - Safety Precautions

- Only use the DC adapter and the power cord provided by Haivision. Using another DC adapter and power cord can damage the device and void the warranty.

Safety and Health Precautions



Handling the Unit

- To avoid any injury during the installation, observe local health and safety requirements and guidelines for manual material handling.
- The unit must be handled carefully and thoughtfully to prevent safety hazards and damage.



Servicing the Unit

- Only trained and approved service engineers are permitted to service this unit.
- Unauthorized maintenance or the use of non-approved replacements may affect the unit specifications and invalidate any warranties.



Electronic and Radio Interference

- To avoid any interference with electronic devices contained in vehicles, keep the unit away from the vehicle's dashboard.
- When connected to wireless networks (3G/4G/5G or Wi-Fi), the unit emits microwaves that can interfere with other electronic devices.
- The operation of this equipment in a residential environment could cause radio interference.



Safety Precautions

- Do not use the unit in any place where the use of mobile phones is usually banned: airplanes, hospitals, and areas with potentially explosive atmosphere (e.g. gas stations, repair shops, fuel or chemical storage areas).
- In accordance with IEC 62368-1:2014 standard, devices must be connected to PS2 power sources. Consequently, only PD2 type external batteries must be used. Pro Series devices are delivered with a design PS2 type power block.



Coin Battery Safety Precautions

- Lithium battery (ref: BR1225A)
- There is a risk of explosion if the battery is replaced by an incorrect type.

 Health Precautions

Operating the unit is not recommended for:

- People with electronic implants (e.g. pacemakers, insulin pumps, implanted pulse generators, hearing aids).
- Pregnant women, old people, children, teenagers and people suffering from epilepsy.

Compliance

Before using the unit, please inform yourself about laws and regulations in force in the country in which you use it. Please refer to the sticker pasted on the unit to know its version.

The declaration of conformity is available upon request. Should you need it, please contact Haivision.

Federal Communications Commission Statement

Model: Pro360-5G

Contains FCC ID: 2ASIK-EM91

Contains FCC ID: 2ASIK-CB178NF

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

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

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

This device must be professionally installed

The Company "HAIVISION" is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

This portable equipment with its antenna complies with FCC's radiation exposure limits set forth for an uncontrolled environment. This equipment has shown compliance with FCC's Specific Absorption Rate (SAR) limits. To maintain compliance, follow the instructions below:

1. This transmitter must not be co-located or operating with any other antenna or transmitter;

2. A minimum distance of 15 mm between the user and the antenna must be kept in order to comply with FCC SAR requirement.

Industry Canada statement

Model: Pro360-5G

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

Contains IC: 21415-EM91

Contains IC: 21415-CB178NF

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This portable equipment with its antenna complies with RSS102's radiation exposure limits set forth for an uncontrolled environment. This equipment has shown compliance with RSS102's Specific Absorption Rate (SAR) limits. To maintain compliance, follow the instructions below :

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. A minimum distance of 15 mm between the user and the antenna must be kept in order to comply with IC SAR requirement.

Cet équipement portable avec ses antennes est conforme aux limites d'expositions de la CNR102 applicables pour un environnement non contrôlé. Cet équipement a démontré la conformité aux limites de Débit d'Absorption Spécifique (DAS). Pour maintenir la conformité suivez les instructions ci-dessous:

1. Cet émetteur ne doit pas être co-localisé ou opérer en conjonction avec toute autre antenne ou émetteur.
2. Une distance minimale de 15 mm entre l'utilisateur et l'antenne doit être respectée afin de se conformer à l'exigence SAR de IC.

WI-FI 5GHz

Operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

La bande 5150-5 250 MHz est réservée uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

Device Disposal

Waste Electrical and Electronic Equipment (WEEE) Disposal



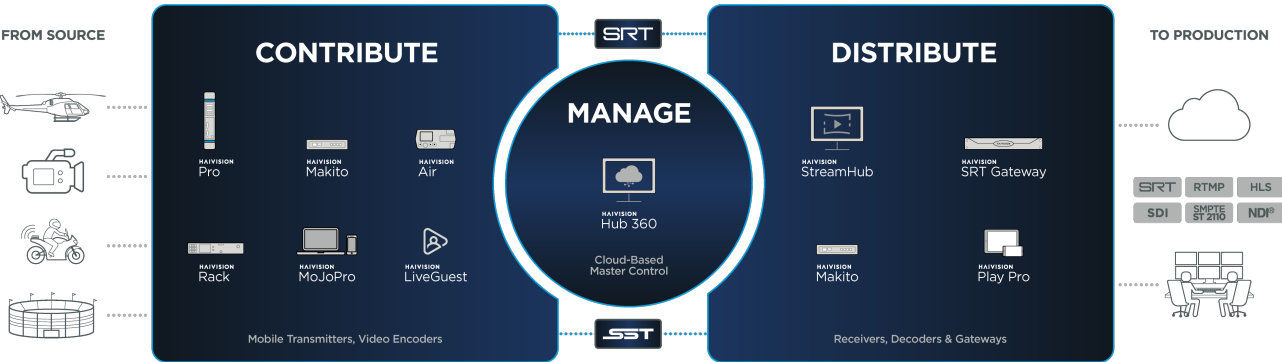
In accordance with the European Union (EU) WEEE Directive, Haivision products that fall within the scope of the WEEE, are labeled with the above symbol, and customers are encouraged to responsibly recycle their equipment at the time of disposal. Haivision also offers its customers the option of returning Haivision equipment to facilitate its environmentally sound disposal.



For more information, please visit our website at: <https://www.haivision.com/environment>.

Product Presentation

The Pro3 Series is a range of camera mounted mobile encoders & transmitters allowing video professionals to broadcast news, sports, or field events from any location around the world. This solution supports video live transmission, record and forward over unmanaged networks - such as 3G/4G-LTE and 5G cellular network, LAN/WAN, or public internet.



With its large set of professional audio and video interfaces, the Pro3 Series supports the best state-of-the-art H.265/HEVC and H.264/AVC hardware encoder by offering premium video quality with less data usage and low end-to-end latency. On the transmission side, the solution features multiple world-wide compliant embedded cellular modems with high efficiency patented custom antenna array: up to x6 3G/4G/5G or x8 3G/4G modems. Additional extension links such as built-in Wi-Fi, Dual Gigabit Ethernet for streaming over LAN/WAN, BGAN, GX or Ka band Satellite are also natively supported, and controlled by our SST (Safe Stream Transport) technology. This award-winning technology powered by Haivision is an intelligent IP bonding stack offering a set of powerful contribution network protocols. It ensures the delivery of video even in the midst of unpredictable and unmanaged network conditions by:

- Aggregating simultaneously multiple network connections,
- Dynamically adapting the video bitrate according to the network bandwidth fluctuations,
- Protecting stream content,
- Supporting retransmission of lost data.

The Pro3 Series is organized as illustrated in the following chart.

	Pro340	Pro360-5G	Pro380
Embedded Cellular Modems	4	6	8
Cellular Networks	3G/4G	3G/4G/5G	3G/4G

Front Panel

A	Touchscreen	E	USB 3.0 port
B	Activity indicator	F	Power button
C	SD card slot	G	Link indicator
D	Intercom mini-XLR (headphone, micro)	H	<i>Pro340 and Pro380 only:</i> Remote antennas (MCX connectors)



Rear Panel

A	Ethernet 2	G	Auto-start switch
B	Ethernet 1	H	Analog audio input/output (right, channel 2)
C	HDMI 1.4 output	I	Analog audio input/output (left, channel 1)
D	HDMI 1.4 input	J	Micro-SIM card slots (8x for Pro380, 6x for Pro360-5G, and 4 for Pro340)
E	3G-SDI output	K	DC input (18-V nominal)
F	3G-SDI input		



Left and Right Sides



- A** Camera Mounting Plate (Gold Mount, V-Mount)
- B** Battery Mounting Plate (Gold Mount, V-Mount)

Indicator Definition

The front of the unit contains LED indicators to provide you with status information.



A Activity Indicator

Status	Meaning
 Fixed Green	The unit is starting.
Flashing Green	Live, Record or Forward in progress.
 Off	No Live, Record or Forward in progress.

B Link Indicator

Status	Meaning
 Fixed Green	The unit is starting. The unit is connected to a destination.
 Off	The unit is not connected to a destination.

Installing the Unit

Follow the steps outlined below to install the unit. The labels in the subsequent image indicate the step numbers.

1. Install the external battery onto the unit side or connect the AC/DC adapter and the power cable.
2. Insert a SD card (if not already installed). It is recommended to use FAT32 or exFAT formats and class 10 SD card.
3. Remove the SIM card cover and insert a SIM card into a slot according to indications written on the cover.
4. For Ethernet transmission, connect the Ethernet cable to ETH1.
5. Connect the video input cables (SDI or HDMI).



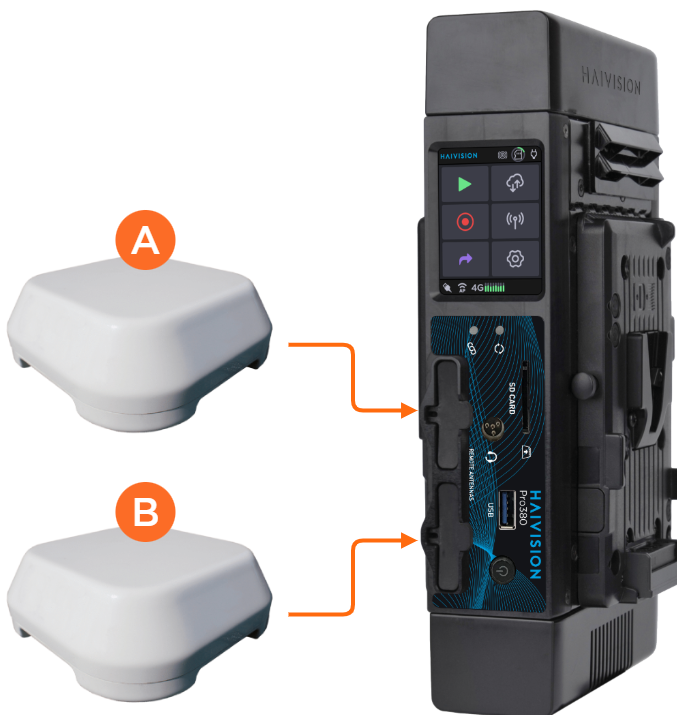
Connecting a Quad Antenna to the Unit



Note

For Pro340 and Pro380 only: connecting a Quad Antenna is not mandatory for the unit's use.

You can connect up to two Quad Antennas to the MCX connectors on the front of the device.

**A**

Quad antenna using modems 1, 2, 3, and 4.

B

Quad antenna using modems 5, 6, 7, and 8.



Note

- When plugging in a Quad Antenna, the unit automatically switches from its enabled antennas to the Quad Antenna's external antenna arrays.
- If only one Quad Antenna is connected to the unit, you need to disable the modems that are not used. (Please see [Enabling/Disabling a Cellular Modem.](#))
- When restarting the unit, the configuration that you applied to modems is kept.

Unit Front Panel

The unit front panel allows you to:

- Configure the unit
- Start/stop a live
- Start/stop a record
- Forward stored files
- Edit various unit settings

Home Menu

The Home Menu provides easy access to each option:



- A** Start a Live
- B** Start a Record
- C** Forward Stored Files
- D** Configuring Data Bridge
- E** Configuring Network Interfaces
- F** Settings Menu

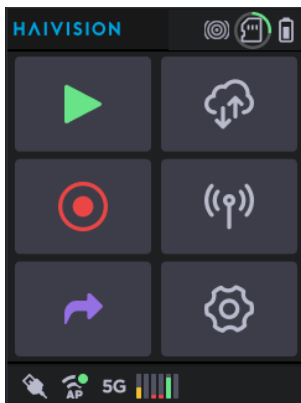
Settings Menu

The Settings Menu provides the following icons:

- Mission Configuration (Optional)
- Input/Output Settings
- Network Settings
- Destination Profiles
- Live Profiles
- Record Profiles
- Forward Settings
- BGAN Settings
- SD card Management
- Device Settings
- Device Information

Status bar

On the front panel the status bars on the top and bottom of the panel, icons indicate the unit state. For example:



Status Icon	What it means
	Battery levels.
	BGAN connection.
	Bars Pattern selected.
	Black Pattern selected.
	Circles Pattern selected.
3G 4G 5G	Cellular connections and their signal levels. (5G for Pro360-5G only)
	Data bridge enabled. See Configuring a Data Bridge .
	Ethernet connections.
	HDMI input selected but no received stream.
	HDMI input selected receiving a stream.
	Intercom communication with master room. See Using the Intercom .
	Live at startup (if enabled). See Enabling/Disabling Auto-Live at Startup .
	Location (if enabled). See Enabling/Disabling the Unit Location .
	Missions selected if the unit is linked with a Manager supporting the Story Centric Workflow. See Selecting a Mission .
	One or two USB keys and the memory space used.
	SD card detected and memory space used.
	SD card in Hot Folder mode. See Transmitting Files via the Hot Folder .
	SD card locked. Add, change or remove content on the card cannot be done if locked. Remove SD card and slide the Lock switch on the side of the card.
	SDI input selected but no received stream.

Status Icon	What it means
	SDI input selected receiving a stream.
	Unit connected to power supply.
	Video Return enabled and receiving a stream. See Receiving a Video Return .
	Wi-Fi connection configured in access point mode. See Configuring a Wi-Fi Access Point .
	Wi-Fi connection in client mode.

Launching the Web Interface

The web interface allows you to:

- Configure the unit
- Start/stop lives
- Start/stop records
- Forward stored files

To access the Web interface, use an Ethernet connection or a Wi-Fi connection.

Ethernet Connection

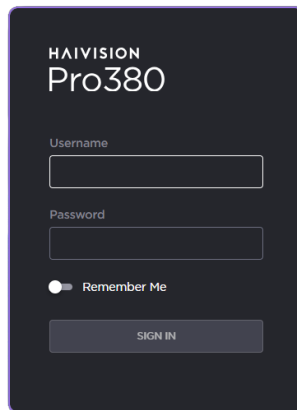


Note

Default credentials are provided by the Important Notice Card delivered with the unit.

1. From the unit panel **Home** menu, tap . The screen displays the IP address assigned to the unit (by default in DHCP mode).
2. On your computer launch a web browser and enter the unit IP address and append " :8888 " to it. Example: 192.168.1.139:8888

The sign-in screen opens:



3. Enter the username and the default password.
4. If this is your first sign-in to the transmitter, you are prompted to change the default password. Enter a new password following the recommendations in the New Password

field and click the **Change** button.

Change Password

In order to protect your device, the default password needs to be updated.

Current Password*

New Password*

Minimum 8 characters including 3 character types

Confirm Password*

CHANGE

The web interface opens:

HAIVISION

Pro380

Dashboard

Streaming

Media

Networks

Settings

Help Center

admin Administrator

Pro_MLM

Dashboard

Name

Pro_MLM

ID

0898081142468034

Version

6.0.0

Users

1 Local / 0 Remote

Power

DEVICE

Current Tx Rate

68.4 kbps

Ethernet

Wi-Fi

Modems

NETWORK USAGE

SD Card

1%

USB - None

0%

STORAGE

Live at Startup

Disabled

Video Return

Disabled

Location

47.933, 16.55

OPTIONS

Streams

VIEW STREAMS

ONLINE

720p60

Pattern

SH BT RxD

Networks

VIEW NETWORKS

Interfaces

All Enabled

CONNECTION	STATUS	TX BITRATE	PRIORITY	
Ethernet 2	192.168.1.92	65.7 kbps		
Wi-Fi	192.168.30.10	0 bps		
4G Modem 1 *	Orange F - B3	896 bps		
4G Modem 2 *	BYTEL - B3	1.79 kbps		
Bluetooth	Not Connected			

Videos

VIEW MEDIA

Recording

SD Card

0%

Time Remaining

Forwarding

SH BT RxD

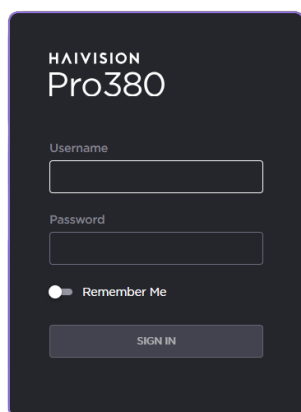
No Last Recording

There is no last recording to forward.

Wi-Fi Connection (Access Point Mode)

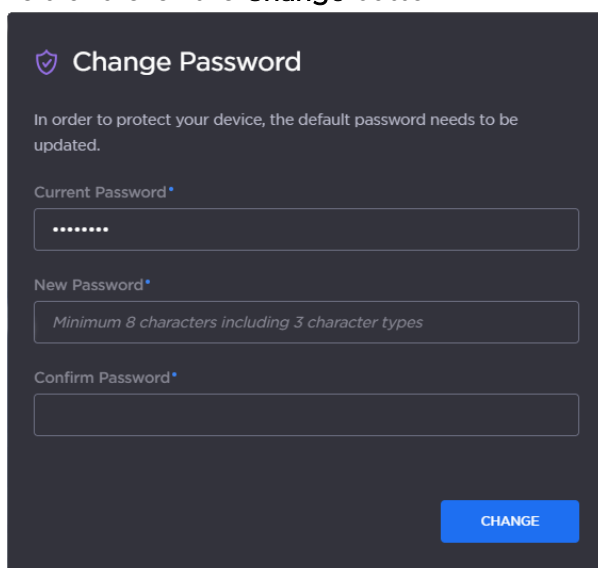
1. From the Unit Panel, configure the unit as a Wi-Fi Access Point (see [Configuring a Wi-Fi Interface](#) for details).
2. On your Wi-Fi client device (computer, notebook, smartphone), go to the Wi-Fi settings menu, and select the access point that you configured.
3. Enter the password that you defined.
4. In a web browser, enter the unit URL: `http://192.168.30.10:8888` (default IP address if it has not been changed).

The sign-in screen opens:



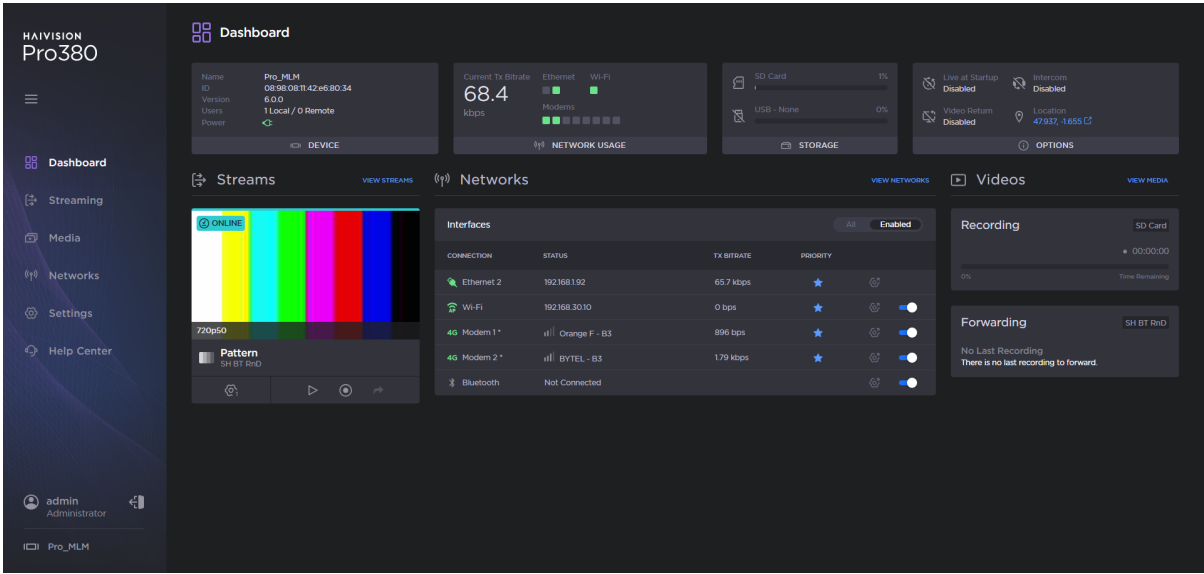
The image shows a dark-themed sign-in screen for the HAIVISION Pro380. At the top, the text 'HAIVISION Pro380' is displayed. Below this, there are two input fields: 'Username' and 'Password'. Under the 'Password' field, there is a 'Remember Me' checkbox which is currently unchecked. At the bottom of the form is a 'SIGN IN' button.

5. Enter the username and password.
6. If this is your first sign-in to the transmitter, you are prompted to change the default password. Enter a new password following the recommendations in the New Password field and click the **Change** button.



The image shows a 'Change Password' screen with a shield icon at the top left. The title is 'Change Password'. Below the title, a message states: 'In order to protect your device, the default password needs to be updated.' There are three password input fields: 'Current Password *', 'New Password *', and 'Confirm Password *'. The 'New Password *' field has a hint: 'Minimum 8 characters including 3 character types'. At the bottom right of the screen is a blue 'CHANGE' button.

The unit's web interface opens.



Configuring an Ethernet Interface

Devices connected to a local LAN transmitter are remotely controllable from the Media Control Room. The unit can operate in different Ethernet modes:

- **DHCP** – (Default) Use the unit in a domain that has a DHCP server. The DHCP server assigns the IP address, subnet mask, and default gateway to the equipment.
- **STATIC** – Connect the unit to a domain without using a DHCP server. In this mode, the network administrator must set the Ethernet interface's IP settings (IP address, netmask, and gateway).
- **GATEWAY** – Connect a host to the unit (for instance, a laptop). The unit acts as a DHCP server and assigns an IP address to the connected host. The unit automatically detects from the netmask the range of IP addresses that it can use for assigning an IP address to the host connected.

Factory Settings According to Selected Mode

Interface	Mode	IP Address	Netmask	Gateway
Ethernet 1	DHCP (Default)	Assigned by DHCP server		
	STATIC	192.168.1.10	255.255.255.0	192.168.1.1
Ethernet 2	DHCP (Default)	Assigned by DHCP server		
	STATIC	192.168.20.10	255.255.255.0	192.168.20.1
	GATEWAY	192.168.20.10	255.255.255.0	
	OFF	N/A	N/A	N/A



Note

- When the OFF option is selected, Ethernet mode is disabled.
- Configuring an Ethernet interface may disconnect the unit.

See the tabs below to configure the Ethernet Interface.

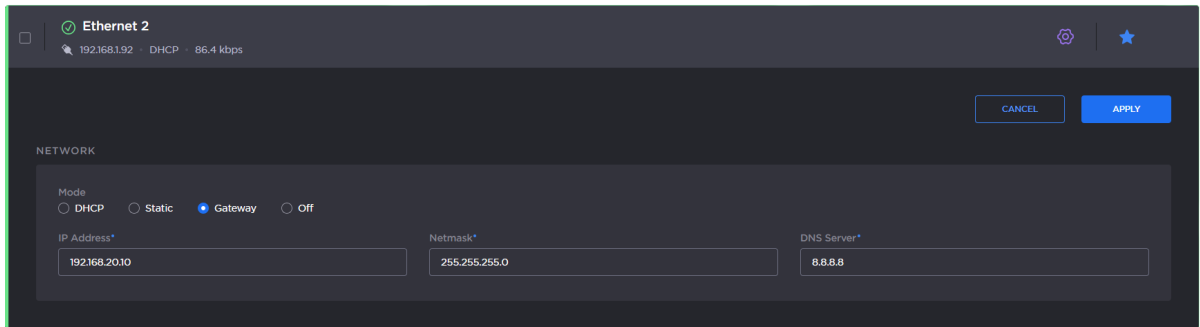
Unit Panel

1. From the **Home** menu, tap  > **ETH** > **Mode**.
2. Tap on a new mode.
3. The selected mode appears:
 - When selecting DHCP mode, settings are automatically retrieved.
 - When selecting STATIC mode, you need to enter network settings.
 - When selecting GATEWAY mode, you need to enter the IP Address, the netmask, and the DNS server address.
 - a. Tap .

- b. Tap on settings fields to be modified.
- c. Use the keyboard to enter new settings and tap  to confirm.
- d. Tap  to scroll down and tap  to save new settings.

Web Interface

1. On the Web Interface, click  on the desired Ethernet line.



2. In the **Mode** field, select the configuration mode according to the Ethernet connection used:
 - DHCP
 - STATIC
 - GATEWAY (only on Ethernet 2)
 - OFF (only on Ethernet 2)
3. Modify the settings as required:
 - If Static mode is selected, IP Address, Netmask and Gateway.
 - if Gateway mode is selected, IP Address and Netmask.
4. Click the **Apply** button to save these settings.



Note

Applying new Ethernet settings will disconnect the unit from the web interface.

Configuring a Wi-Fi Interface

The unit can operate either as a Wi-Fi Access Point, or a Wi-Fi Client.

- [Enabling/Disabling the Wi-Fi Interface](#)
- [Configuring a Wi-Fi Access Point](#)
- [Configuring a Wi-Fi Client Interface](#)

Enabling/Disabling the Wi-Fi Interface



Note

By default, the Wi-Fi network is disabled.

See the sections below to configure the Wi-Fi Interface.

Unit panel

1. From the **Home** menu, tap **WiFi**.
2. Tap the Wi-Fi line to access the settings menu.
3. Tap the toggle button to enable the Wi-Fi.

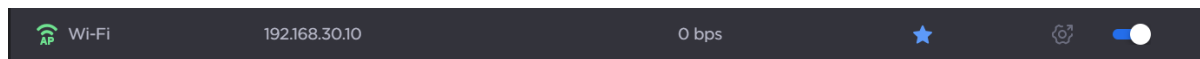
Web Interface

On the Dashboard, in the Networks section, click the toggle button to enable or disable the Wi-Fi connection.

Wi-Fi disabled:

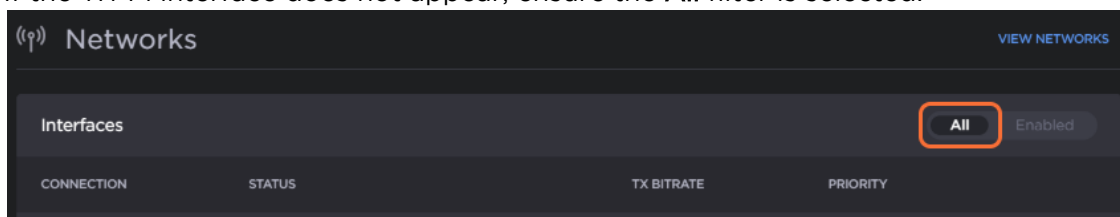


Wi-Fi enabled:



Note

- If you disable Wi-Fi you may lose the web interface connection.
- If the Wi-Fi interface does not appear, ensure the **All** filter is selected:



Configuring a Wi-Fi Access Point

By default, the Wi-Fi network is disabled. Enable it first as described in [Enabling/Disabling the Wi-Fi Interface](#).

When configured in Wi-Fi access point mode, the unit can be controlled remotely from a smartphone, tablet or laptop.

See the sections below to configure the Wi-Fi access point.

Unit panel

1. From the **Home** menu, tap  > **Wifi** > **Mode** > **Access Point**.
2. Tap  to scroll down.
3. Tap .
4. Define the Wi-Fi settings:
 - **Network Name:** (automatically formatted as follows: "Pro_" followed by the unit hardware ID.)
 - **Frequency Band:** 2.4GHz or 5.0GHz.
 - **Channel:** Select the channel used (dynamic list according to the frequency band).
 - 2.4GHz: channel 1 to 11.
 - 5.0GHz: channel 36, 40, 44 and 48.

Note

In Access Point mode, 5GHz band is not available for Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia.

- **Password:** By default: Password.
5. Tap  and select **ADVANCED+**.
 6. Define IP settings (**IP Address**, **Netmask** and **DNS server address**).
 7. Tap .

An icon indicates that the Wi-Fi Access Point is configured:

-  A Wi-Fi Access Point is configured
-  At least one client is connected to the Access Point

Web Interface

1. On the dashboard in the Networks section, click  in the Wifi line.

2. In the **Mode** section, select **Access Point**.

The screenshot shows the Wi-Fi configuration interface. At the top, there's a 'Wi-Fi' header with a 'Scanning' status and '0 bps' speed. Below this, there are 'CANCEL' and 'APPLY' buttons. The 'MODE' section has two radio buttons: 'Client' and 'Access Point', with 'Access Point' being selected. The 'NETWORK' section contains several fields: 'Name' (UNIT_08:98:08:11:42:e6:80:34), 'Frequency' (2.4 GHz), 'Channel' (11), 'IP Address*' (192.168.30.10), 'Netmask*' (255.255.255.0), 'DNS Server*' (8.8.8.8), and 'Password*'. There is a 'GENERATE' button next to the password field.

3. Define the Wi-Fi settings in the Network section.

- **Name:** (automatically formatted as follows: "ProductSeries_" followed by the unit hardware ID)
- **Frequency Band:** 2.4GHz or 5.0GHz.
- **Channel:** Select the channel used (dynamic list according to the selected frequency band).
 - 2.4GHz: channel 1 to 11.
 - 5.0GHz: channel 36, 40, 44 and 48.

**Note**

In Access Point mode, 5GHz band is not available for Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia.

- Enter the **IP Address**, the **Netmask**, and the **DNS Server Address**.
- **Password:** By default: Password. Click the **Generate** button to create a new random password. Click the  icon to show the generated password..

4. Click the **Apply** button.

Configuring a Wi-Fi Client Interface

By default, the Wi-Fi network is disabled. Enable it first as described in [Enabling/Disabling the Wi-Fi Interface](#).

To configure a Wi-Fi Client interface, refer to the following:

- [Scanning for a Wireless Network](#)
- [Manually Adding a Network](#)

Scanning for a Wireless Network

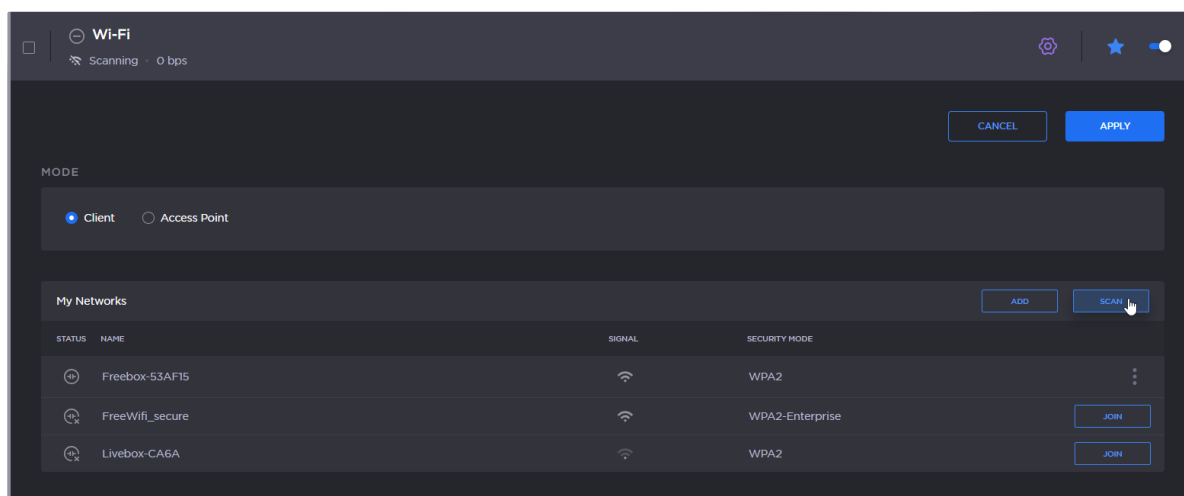
To scan for a wireless network from the Unit Panel, or from the Web Interface, see the tabs below.

Unit panel

1. From the **Home** menu, tap  > **WiFi** > **Mode** > **Client**.
2. Tap  to scroll down and tap  to scan surrounding networks.
3. Tap  or  to select a network.
4. Tap the network name to select it.
5. Enter the password and tap  to confirm.
6. Tap .

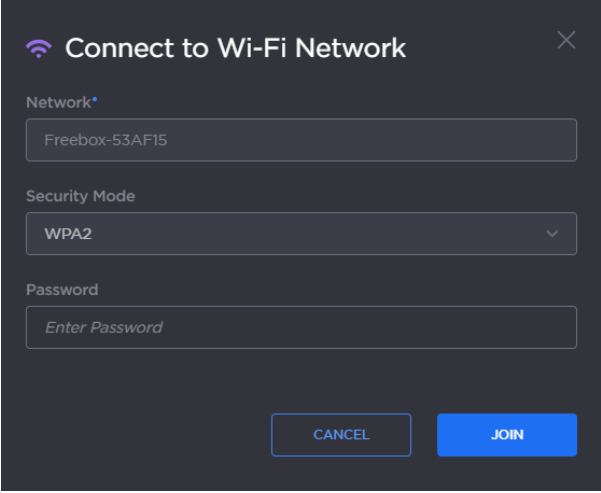
Web Interface

1. On the Dashboard in the Networks section, click the  icon in the Wi-Fi entry.
2. If the Mode section, if not selected, select **Client**.
3. Click the **Scan** button.
Surrounded networks are scanned and listed.



4. Select the desired network among the list by clicking the **Join** button.

5. Enter the password and click the **Join** button.

A dark-themed dialog box titled "Connect to Wi-Fi Network" with a close button (X) in the top right corner. It contains three input fields: "Network" with the text "Freebox-53AF15", "Security Mode" with a dropdown menu showing "WPA2", and "Password" with the placeholder text "Enter Password". At the bottom, there are two buttons: "CANCEL" and "JOIN".

Connect to Wi-Fi Network

Network

Freebox-53AF15

Security Mode

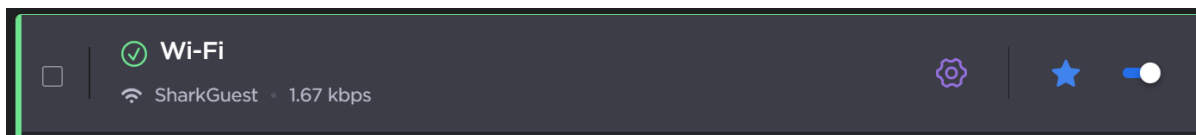
WPA2

Password

Enter Password

CANCEL JOIN

After successfully joining the network, the connection status appears in the Wi-Fi network entry.



Manually Adding a Network

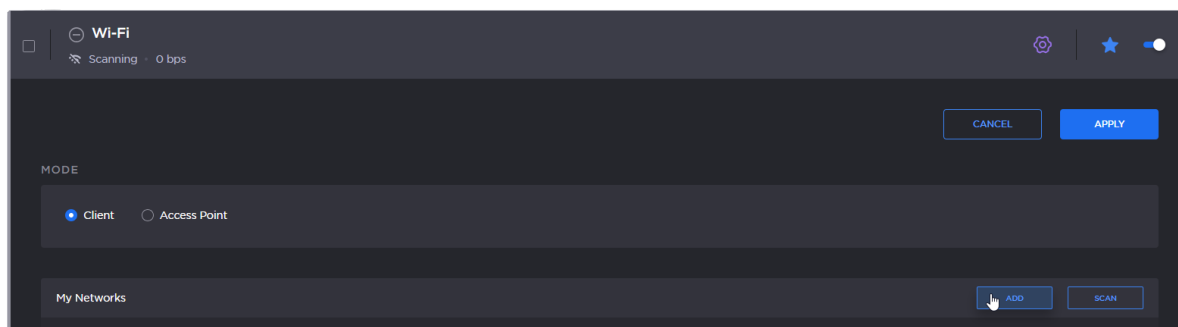
To manually add a network from the Unit Panel or from the Web Interface, see the sections below.

Unit panel

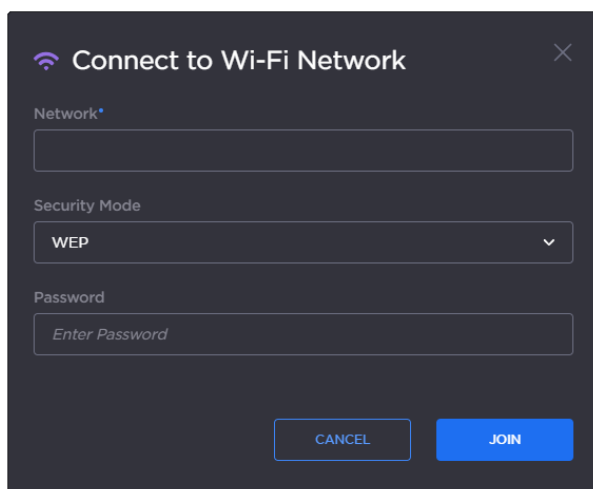
1. From the **Home** menu, tap  > **WiFi** > **Mode** > **Client** > .
2. Tap  to add a new network.
3. Enter a **Network name**, select a **Security Mode**, and enter a **Password**.
4. Enter the network password.
 - Tap  to connect the network.
 - Tap  to save the new network.

Web Interface

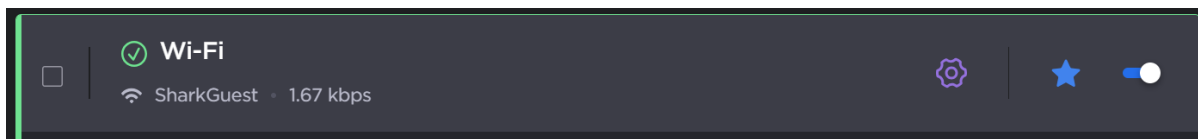
1. On the Dashboard in the **Networks** section, click the  icon in the Wi-Fi entry.
2. In the Mode section, if not selected, select **Client**.
3. Click the **Add** button.



4. Enter the **Network name**, select a **Security Mode**, and enter a **Password**, if required.
5. Click the **Join** button.



After successfully joining the network, the connection status appears in the Wi-Fi network entry.



Configuring a Cellular Interface

Topics Include

- [Connecting a Quad CellLink to the Unit](#)
- [Inserting a SIM Card](#)
- [Enabling/Disabling a Cellular Modem](#)
- [Enabling/Disabling All Internal Cellular Modems](#)
- [Enabling/Disabling all Quad CellLink Cellular Modems](#)
- [Enabling/Disabling IPv6 on Cellular Modems](#)

Connecting a Quad CellLink to the Unit

To connect a Quad CellLink to the unit:

1. On the Quad CellLink, remove the SIM card cover and insert the SIM cards into slots according to indications written on the cover.

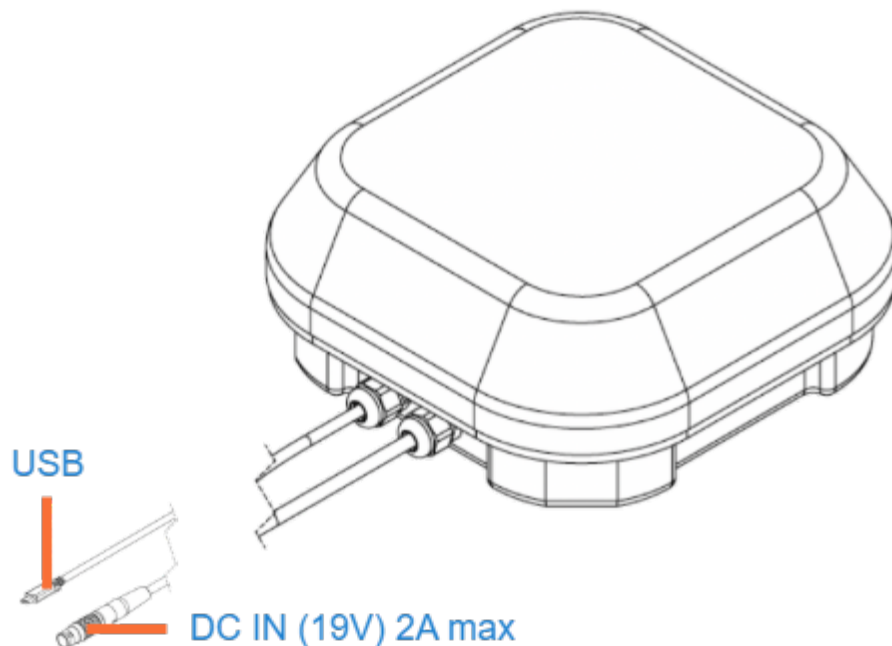
Note

Ensure the SIM cards are already unlocked.

2. Replace the SIM card cover.
3. Connect the AC/DC adapter and the power cable.
4. Connect the USB cable to the unit.

Note

Choose a weather-protected area for this connection to avoid any damage due to ambient humidity or rain.



5. Open the transmitter Web Interface.

The Quad CellLink is automatically detected in the web interface:

- QUAD-1 means modem #1 from Quad CellLink,
- QUAD-2 means modem #2 from Quad CellLink, etc.

4G QUAD-1 *	 Orange F - B20	2.27 kbps			
4G QUAD-2	 Orange F - B3	50 kbps			
4G QUAD-3	 SFR - B3	896 bps			
4G QUAD-4	 Free - B1	896 bps			



Note

You can connect up to two Quad CellLinks to the transmitter.

Inserting a SIM Card

To insert a SIM card:

1. Ensure that your SIM card is unlocked.



Note

In some cases, you may need to identify the unit IMEI (International Mobile Equipment Identity). To access this information, please refer to [Getting IMEI, IMSI, and ICCID Numbers](#).

2. Insert the SIM card into a slot in the unit's rear panel.

Pro340

- A Pro340 unit is equipped with 4x 3G/4G modems.
- Slots 1 to 4 can be used.



Pro360-5G

- A Pro360-5G unit is equipped with 6x 3G/4G/5G modems.
- Slots 1 to 6 can be used.



Pro380

- A Pro380 unit is equipped with 8x 3G/4G modems.
- Slots 1 to 8 can be used.





Note

When using the unit in the USA, we recommend inserting SIM cards as indicated in the table below

SIM Slot Number	US Operator
1	AT&T
2	T-Mobile
3	Verizon
4	AT&T
5	T-Mobile
6	Verizon
7	AT&T
8	T-Mobile

Enabling/Disabling a Cellular Modem

To enable or disable a cellular modem from the Unit Panel or from the Web Interface, see the tabs below.

Unit panel

1. From the **Home** menu, tap .
2. Tap  to select the modem that you want to enable or disable.
3. Tap the modem to be enabled or disabled.
4. Tap the toggle button to enable or disable the modem.

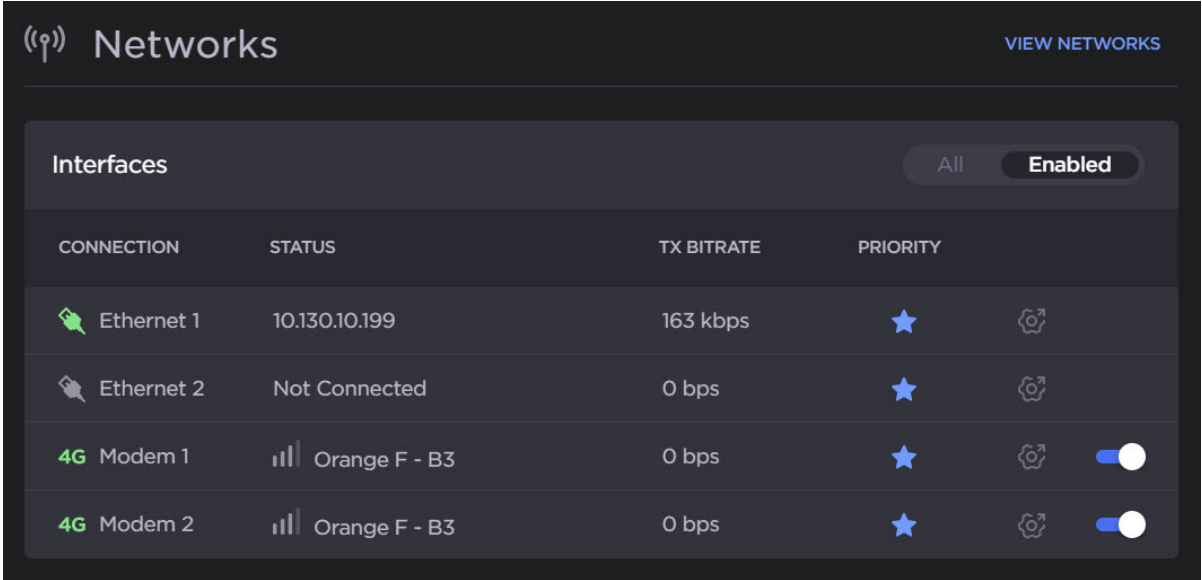
Web Interface

1. From the Dashboard, find the cellular modem in the Network Interfaces list.



Tip

Use the toggle at the top of the list to view All connections or Enabled connections only.



Interfaces				All Enabled	
CONNECTION	STATUS	TX BITRATE	PRIORITY		
 Ethernet 1	10.130.10.199	163 kbps	★		
 Ethernet 2	Not Connected	0 bps	★		
 4G Modem 1	 Orange F - B3	0 bps	★		
 4G Modem 2	 Orange F - B3	0 bps	★		

2. Use the toggle button in the last column to enable or disable the modem.



Note

Click **View Networks** to manage network connections from the Interfaces page.

Enabling/Disabling All Internal Cellular Modems

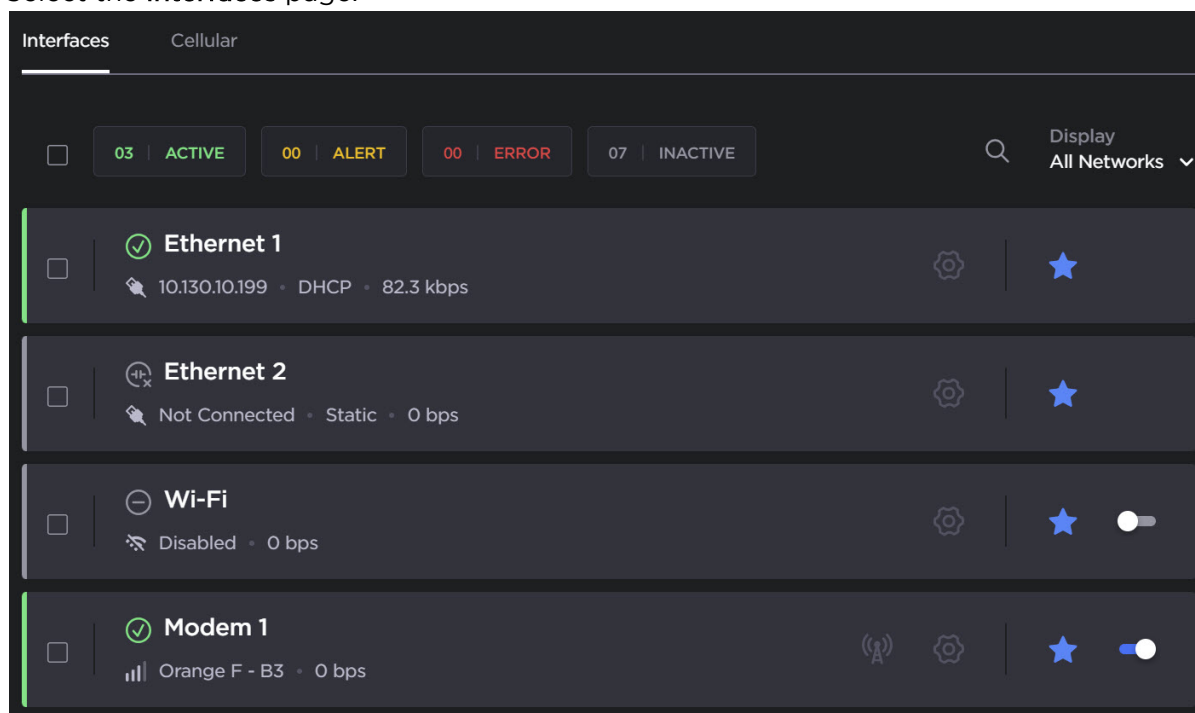
You can enable and disable all internal cellular modems either from the Unit Panel or from the Web Interface.

Unit Panel

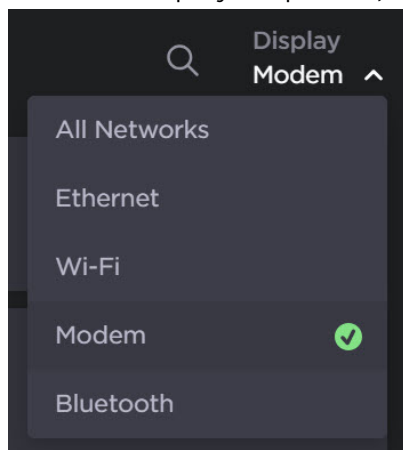
1. From the **Home** menu, tap  > .
2. In the **Embedded cellular modems** field, tap the toggle button to enable or disable all internal modems.

Web Interface

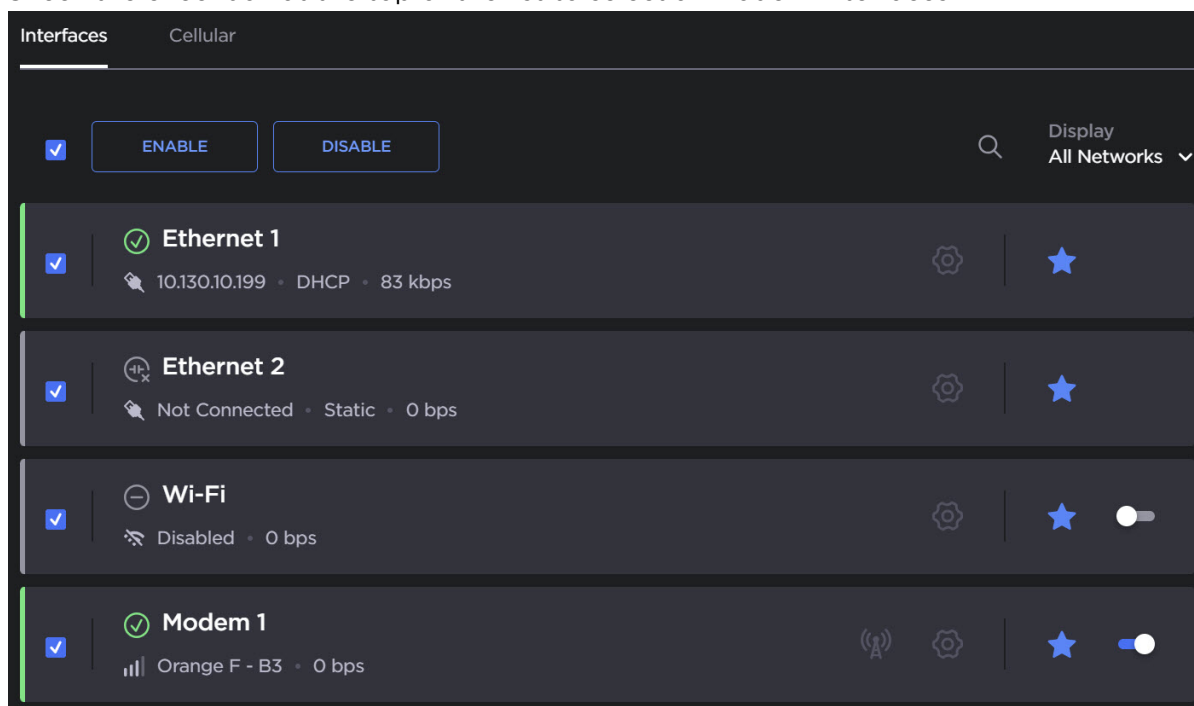
1. From the Web Interface, click **Networks** on the sidebar.
2. Select the **Interfaces** page.



- From the Display dropdown, select Modem.



- Check the checkbox at the top of the list to select all Modem interfaces.



- Click the **Enable** or **Disable** buttons. This action will be applied to all Modems.

Enabling/Disabling all Quad CellLink Cellular Modems

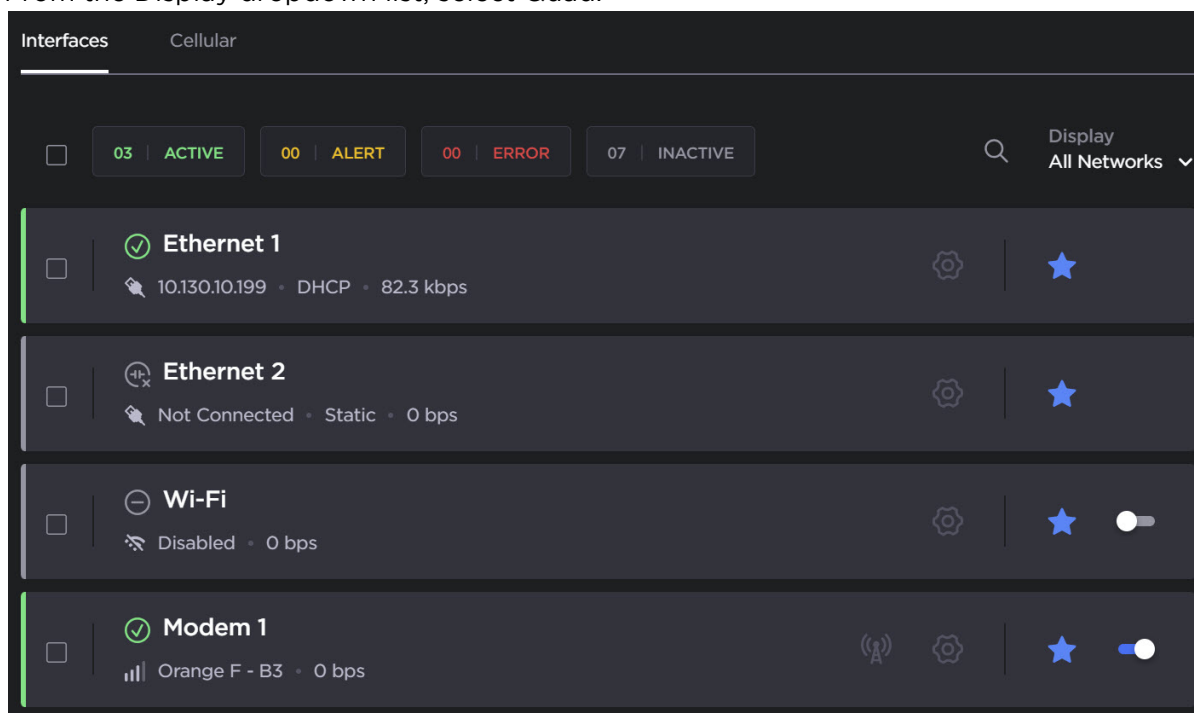
You can enable and disable all Quad CellLink cellular modems either from the Unit Panel or from the Web Interface.

Unit Panel

1. From the **Home** menu, tap  > .
2. In the **QUAD CellLink cellular modems** field, tap the toggle button to enable or disable all Quad CellLink modems.

Web Interface

1. From the dashboard, click **Networks > Interfaces**.
2. From the Display dropdown list, select Quad.



3. Check the checkbox at the top of the list to select all Quad Modems.
4. Click the **Enable** or **Disable** buttons. This action will be applied to all Modems.

Enabling/Disabling IPv6 on Cellular Modems

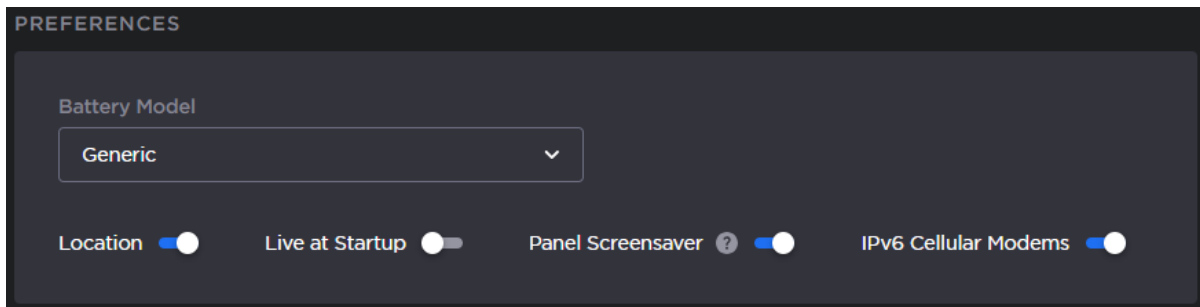
You can enable and disable IPv6 on cellular modems either from the Unit Panel or from the Web Interface.

Unit panel

1. From the **Home** menu, tap  > .
2. Toggle the **IPv6 cellular modems** field on or off to enable or disable IPv6.

Web Interface

1. From the Web Interface, in the sidebar, click **Settings > System**.
2. In the Preferences section, toggle **IPv6 cellular modems** on or off to enable or disable IPv6.



Using Bluetooth

External audio inputs can be added via Bluetooth to be used with the intercom. For more information, see [Using the Intercom](#).

To configure Bluetooth from the Unit Panel or from the Web Interface, see the tabs below.

Unit panel

1. From the **Home** menu, tap  > **BT**.
2. Tap the toggle button to enable Bluetooth.

Once Bluetooth is enabled, you can:

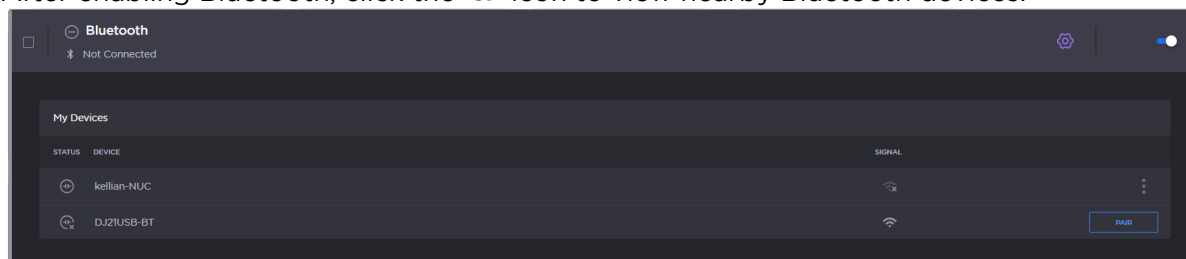
- Tap  to display all nearby devices and tap on the device to be paired.
- Tap  to display previously paired devices and tap on the device you wish to pair with.

Web Interface

1. On the Dashboard in the Networks section, click on the toggle button in the Bluetooth line to enable or disable Bluetooth.



2. After enabling Bluetooth, click the  icon to view nearby Bluetooth devices.

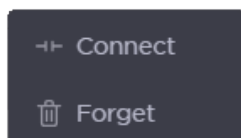


3. Click the **Pair** button to pair with the desired Bluetooth device.



Note

To connect to a Bluetooth device previously paired or to forget it, click the  icon.



Managing the APN Database

The unit is delivered with a pre-defined Access Point Name (APN) database. You can modify the database from the Web Interface.

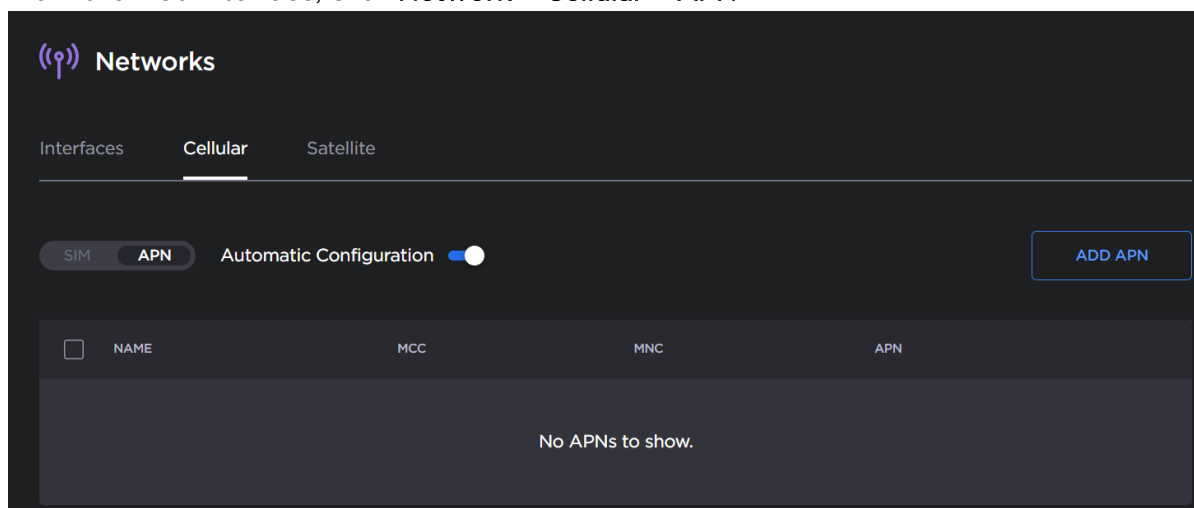
Topics include:

- [Adding an APN to the Database](#)
- [Configuring a New APN](#)
- [Selecting a Predefined APN](#)
- [Deleting an APN](#)
- [Enabling / Disabling the Automatic APN Configuration](#)

Adding an APN to the Database

Add and configure new APN settings to suit your requirements, so that they can be easily selected from the list.

1. From the web interface, click **Network > Cellular > APN**.



2. Click the **Add APN** button. The Add APN dialog appears:

The 'Add APN' dialog box is shown with a close button in the top right. It is divided into two sections: 'GENERAL' and 'PARAMETERS'. The 'GENERAL' section contains a 'Name*' field with a placeholder 'Enter a name'. The 'PARAMETERS' section contains four fields: 'MCC*' (placeholder 'Enter MCC'), 'MNC*' (placeholder 'Enter MNC'), 'APN*' (placeholder 'Enter APN'), and a 'Username' field (placeholder 'Enter username'). There is also a 'Password' field (placeholder 'Enter password'). At the bottom right of the dialog are 'CANCEL' and 'ADD' buttons.

3. In the General section, enter a **Name**.

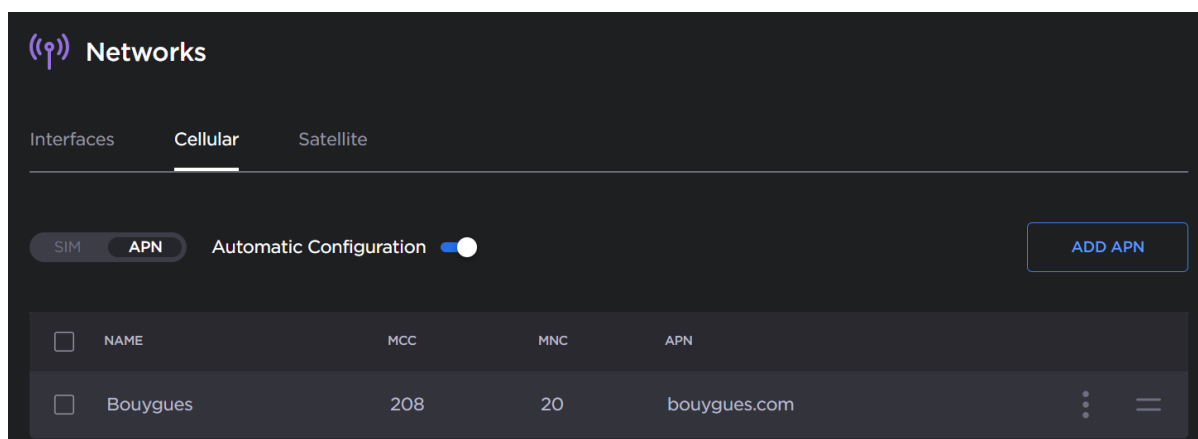
4. Fill in the parameters fields (**MCC**, **MNC**, and **APN**).

**Note**

If needed, refer to mcc-mnc.com for assistance.

5. If required, enter a **Username** and a **Password**.
6. Click the **Add** button.

The new APN appears in the APN database, and you can select it from the scrolling list when configuring a cellular interface operating within the same network.



Configuring a New APN

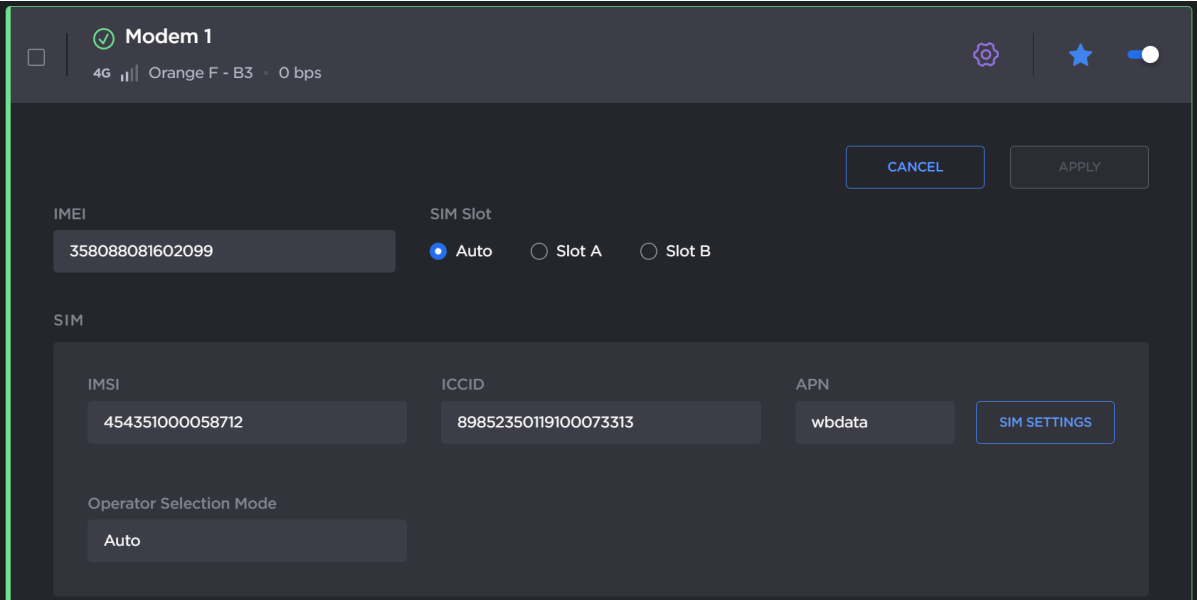
To configure a new APN from the Unit Panel or from the Web Interface, see the tabs below.

Unit panel

1. From the **Home** menu, tap  > **MOD** > .
2. Enter a name for the new APN, a username and a password if required.
3. Tap  to save.

Web Interface

1. From the dashboard, in the Networks section, click the  icon on an active modem.
2. Click the **SIM Settings** button.



The screenshot shows the 'Modem 1' configuration page in a web interface. At the top, there's a status bar with '4G', signal strength bars, 'Orange F - B3', and '0 bps'. Below this, there are icons for settings, a star, and a toggle switch. The main content area has a 'CANCEL' button and an 'APPLY' button at the top right. Under the 'IMEI' label, there's a text input field containing '358088081602099'. To the right, under 'SIM Slot', there are three radio buttons: 'Auto' (selected), 'Slot A', and 'Slot B'. Below this, under the 'SIM' section, there are three text input fields: 'IMSI' with '454351000058712', 'ICCID' with '89852350119100073313', and 'APN' with 'wbdata'. To the right of the 'APN' field is a 'SIM SETTINGS' button. At the bottom, there's a section for 'Operator Selection Mode' with a text input field containing 'Auto'.

3. In the APN section, enter the APN fields with the proper settings and click the **Save** button.

Edit SIM

SIM

IMEI: 358088081163043

IMSI: 454351000058715

ICCID: 89852350119100073347

APN Pre-Defined APN

Name: Webbing Global

APN: wbdata

Username: Enter username

Password: Enter password

OPERATOR

Selection Mode: Manual

Name: 20801

CANCEL SAVE

Selecting a Predefined APN

If the SIM card operator is registered in the unit's database, the unit automatically assigns a name and an APN. If the APN assigned is not relevant, you can select another one within a predefined list, or configure a new one. See the tabs below.

Unit panel

1. From the **Home** menu, click on > **MOD** > > .
2. Use the arrows to browse APNs and press the screen to select one.
3. Enter the password and click on .

Web Interface

1. From the dashboard, in the Networks section, click on an active modem.
2. Click the **SIM Settings** button.
3. Click **Pre-Defined APN** and select an APN in the drop-down list.

Edit SIM

SIM

IMEI: 358088081163043 IMSI: 454351000058715

ICCID: 89852350119100073347

APN

Pre-Defined APN ↑
Webbing Global - wbddata

Name* Webbing Global APN wbddata

Username Enter username Password Enter password

OPERATOR ⓘ

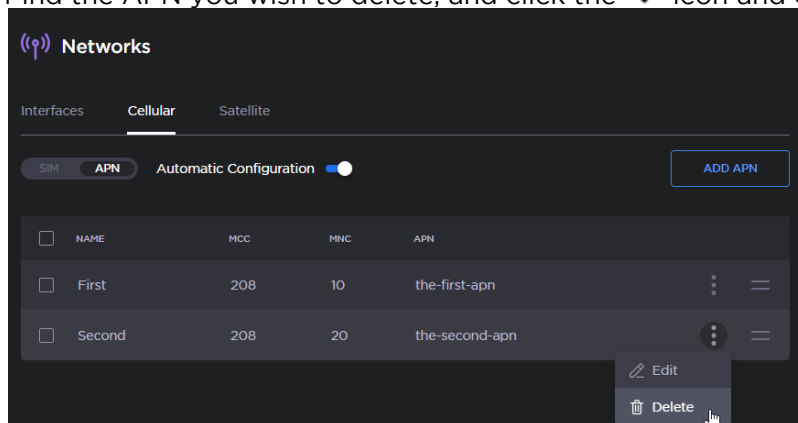
Selection Mode
Manual

CANCEL SAVE

4. Click the **Save** button.

Deleting an APN

1. In the web interface, click **Network > Cellular > APN**.
2. Find the APN you wish to delete, and click the  icon and click  **Delete**.



The APN is removed from the list.

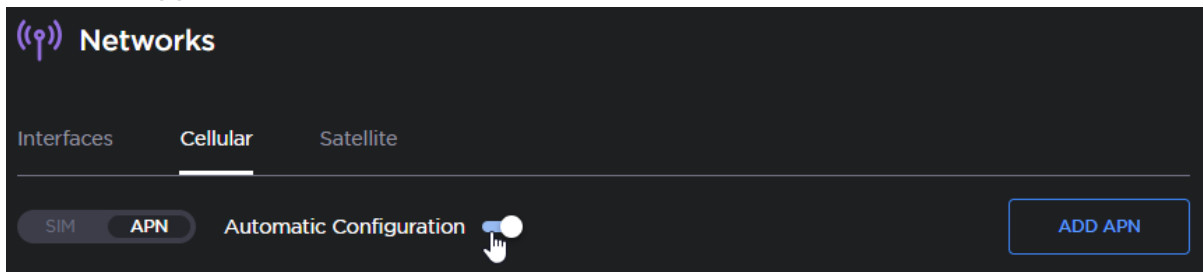
Enabling / Disabling the Automatic APN Configuration

When APN automatic configuration is enabled, an APN is automatically assigned when a new SIM card is inserted.

1. From the web interface, click **Network** > **Cellular** > **APN**.

 **Important**
By default, APN automatic configuration is enabled.

2. Click the toggle button to enable or disable.



Configuring a BGAN Profile

By default, the unit does not contain a Broadband Global Area Network (BGAN) profile. You must create and configure a BGAN profile before selecting it in a Live profile or a Forward configuration. See [Configuring Live Profiles](#) and [Configuring Forward Settings](#).

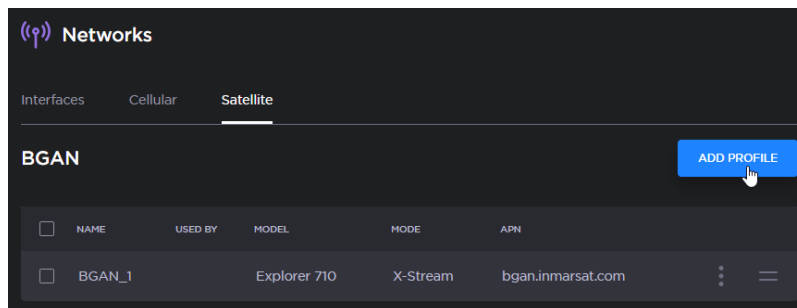
To configure a BGAN profile from the Unit panel or Web Interface, see the tabs below.

Unit panel

1. From the Home menu, tap  >  > .
2. Fill in the settings:
 - **Profile Name**
 - **Model:** Hughes 9201, Hughes 9211, or Explorer 710
 - **APN**
3. Enter a **Username** and a **Password** (if required).
4. Select a **Mode:** X-Stream, Background, HDR Full-Asymmetric, or HDR Full-Symmetric.
5. Tap  to save the BGAN profile.

Web Interface

1. In the sidebar, click **Network** > **Satellite** > **BGAN**.
2. Click the **Add Profile** button.



3. Fill in the settings: **Profile Name**, **Model**, and **APN**.
4. Enter a **Username** and a **Password**, if required.
5. Choose a **Mode** in the dropdown list.

6. Click the **Add** button.

Add BGAN

GENERAL

Name *

Enter Name

PARAMETERS

Model

Explorer 710

Mode

X-Stream

APN

Enter APN

Username

Enter Username

Password

Enter Password

CANCEL ADD

The new BGAN profile is added to the Networks list.

Managing Cellular Operators

For each SIM card, you can decide how to manage the selection of the cellular operator. You have three possibilities:

- **Automatic mode:** The unit selects the operator by itself.
- **Manual Selection:** This mode is selected from the Web Interface. It allows manually entering the MCC and the MNC of the operator that you want to use.
- **Scan and Select:** You select among a list of operators detected by scanning available networks.



Note

From the Web Interface, click on **Networks > Cellular > SIM** to have an overview of your SIM Cards. Sort the SIM Cards by clicking on the column heading.

Networks				
Interfaces Cellular Satellite				
SIM APN		EXPORT SIM CONFIG IMPORT SIM CONFIG		
☐	IMSI OR ICCID	MODEM ↑	APN	OPERATOR
☐	89852350119100073313	Modem 1	wbdata	(Auto)
☐	89852350119100073321	Modem 2	wbdata	(Auto)
☐	89852350119100073347		wbdata	(Auto)
☐	89852350119100073339		wbdata	(Auto)

Topics Include

- [Selecting Automatic Mode](#)
- [Selecting a Cellular Operator](#)
- [Manually Selecting a Cellular Operator](#)
- [Configuring Modem Bands](#)

Selecting Automatic Mode



Note

Automatic Mode is the default setting.

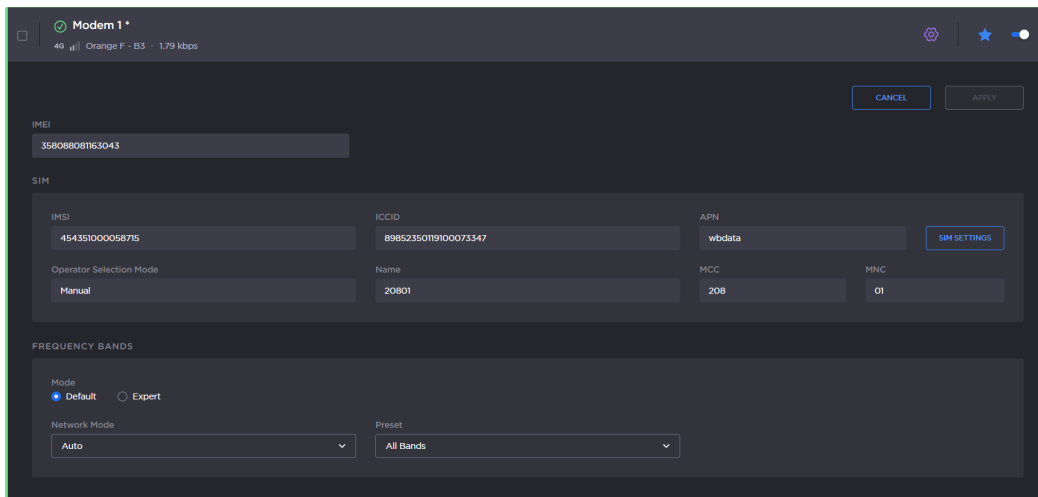
To select automatic mode from the Unit Panel or from the Web Interface, see the tabs below.

Unit panel

1. From the **Home** menu, tap  > **MOD** >  > **Operator**.
2. Tap the toggle button to enable Automatic Mode.

Web Interface

1. From the Dashboard, in the Networks section, click the  icon on an active modem.
2. Click the **SIM Settings** button.



The screenshot shows the 'Modem 1' settings page in a dark theme. At the top, there's a status bar with '4G', 'Orange F - B3', and '1.79 kbps'. Below this, there are 'CANCEL' and 'APPLY' buttons. The main section is titled 'SIM' and contains several input fields: 'IMEI' (35808808163043), 'IMSI' (45435100005875), 'ICCID' (8985235019100073347), 'APN' (wbdata), 'Operator Selection Mode' (Manual), 'Name' (20801), 'MCC' (208), and 'MNC' (01). There is a 'SIM SETTINGS' button next to the APN field. Below the SIM section is the 'FREQUENCY BANDS' section, which has two tabs: 'Default' (selected) and 'Expert'. Under 'Default', there are two dropdown menus: 'Network Mode' (set to 'Auto') and 'Preset' (set to 'All Bands').

3. In the Operator section's Selection Mode dropdown, select **Auto** if it is not already selected.

Edit SIM

SIM

IMEI: 358088081602099

IMSI: 454351000058712

ICCID: 89852350119100073313

APN Pre-Defined APN

Name: Webbing Global

APN: wbddata

Username: Enter username

Password: Enter password

OPERATOR

Selection Mode: Auto

CANCEL SAVE

4. Click the **Save** button.

Selecting a Cellular Operator

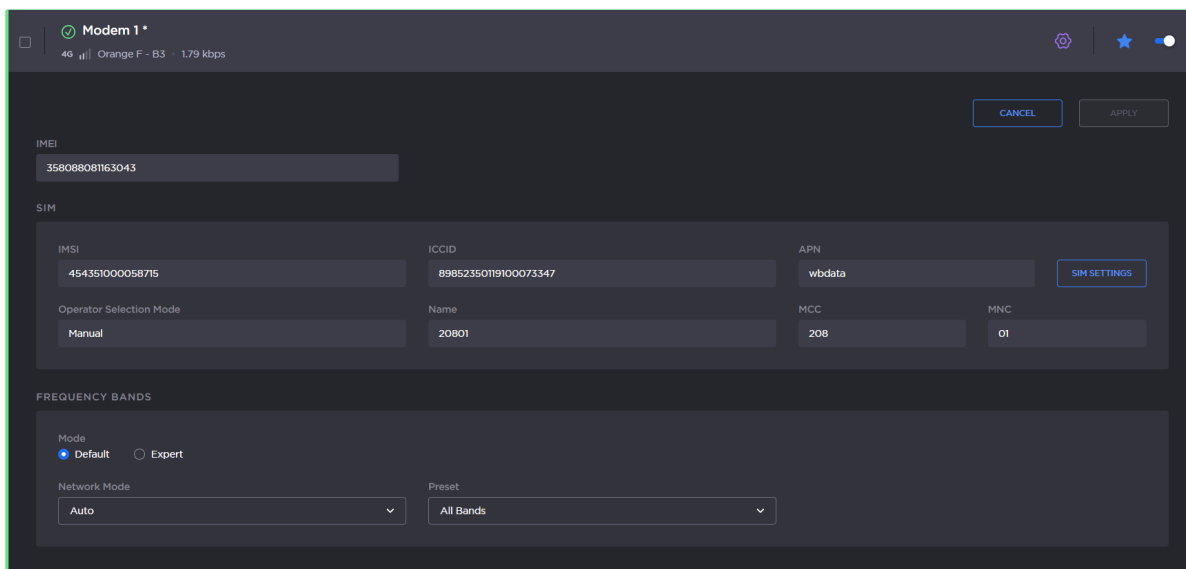
To select a cellular operator from the Unit Panel, or from the Web Interface, see the sections below.

Unit Panel

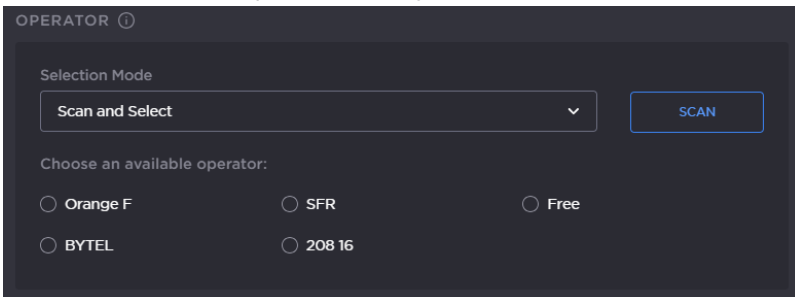
1. From the **Home** menu, click on  > **MOD** >  > **Operator**.
2. Tap the toggle button to disable Automatic mode. A scan for available operators starts. It may take a few minutes.
3. Tap the desired operator.
4. Tap  to save.

Web Interface

1. From the dashboard, in the Networks section, click the  icon on an active modem.
2. Click the **SIM Settings** button.



3. In the Operator section's Selection Mode dropdown, select **Scan and select** and click the **Scan** button. This operation may take a few minutes.



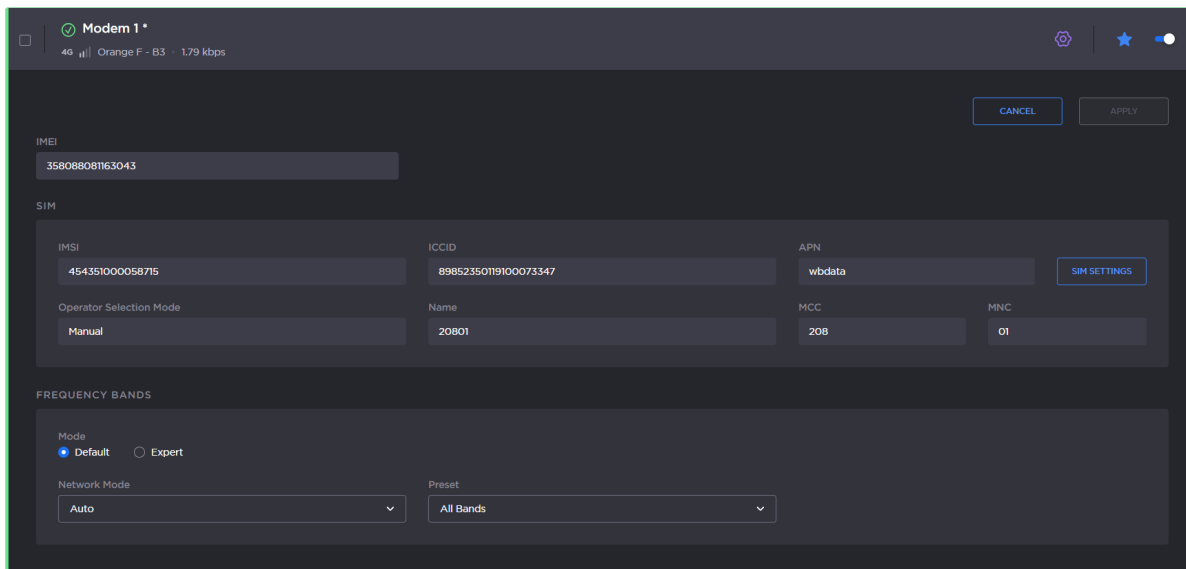
4. Select the desired operator from the list.

5. Click the **Save** button.

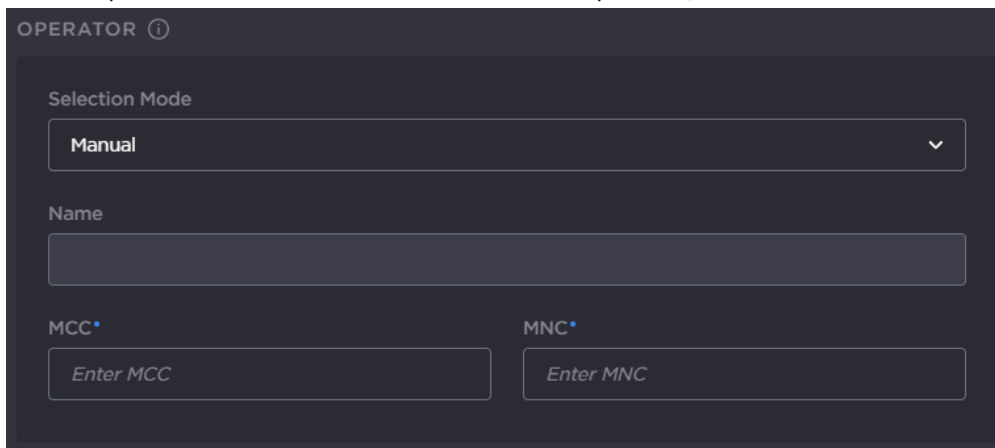
Manually Selecting a Cellular Operator

The option to set the MCC (Mobile Country Code) and MNC (Mobile Network Code) manually is only available on the Web Interface.

1. From the dashboard, in the Networks section, click  on an active modem.
2. Click the **SIM Settings** button.



3. In the Operator section's Selection Mode dropdown, select **Manual**.



4. Fill the MCC and MNC fields.



Note

If needed, refer to mcc-mnc.com for assistance.

5. Click the **Add** button.

Configuring Modem Bands



Important

If modem bands are not set in automatic mode or if they are not all selected, a star is displayed on the modem line.

You can configure modem bands using:

- **Default Mode** – keeps it simple by limiting required fields to Network Mode and Preset.
- **Expert Mode** – gives you access to all bands.

Depending on whether you are working locally from the unit panel or remotely from the web interface, choose from the following tabs.

Unit Panel

Default Mode

1. From the **Home** menu, tap > **MOD** > > **Frequency Bands**.
2. Choose one of the following for the **Network Mode**: Auto, 5G/4G, 5G Only, 4G Only, 3G Only.



Note

- 5G/4G and 5G Only are available on the Pro360-5G model.
- For 5G networks operating in Non-Standalone mode (NSA), select 5G/4G settings.

3. Tap the **Preset** field and choose either All Bands or Low Frequency.



Note

Low Frequency bands are useful for indoor operations.

4. Tap the **Carrier** field to select an image in the list.

**Note**

Pro360-5G only: Selecting the carrier-specific firmware may be mandatory to comply with some local regulations (e.g. Japan). In common cases, you should always keep the generic firmware selected. Should you have any doubt, please contact our support team.

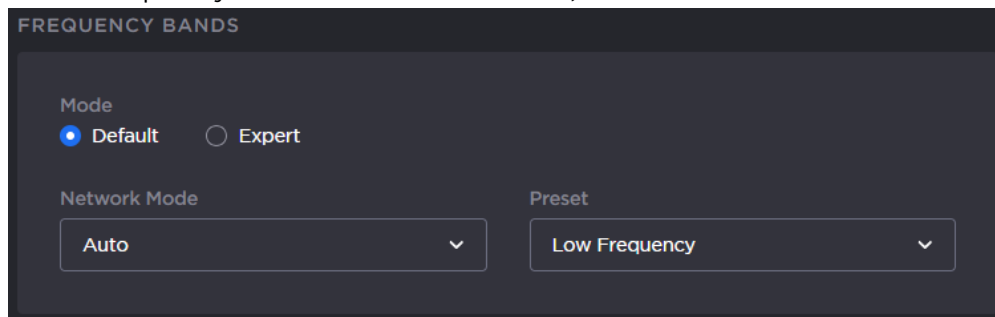
Expert Mode

1. From the **Home** menu, tap  > **MOD** >  > **Frequency Bands**.
2. Tap the toggle button to enable **Expert Mode**. All bands are displayed on the screen.
3. Tap  to unselect the different cellular bands. The green dots turn to grey.
4. Tap  to save.

From the Web Interface

Default Mode

1. From the dashboard, in the Networks section, click the  icon on an active modem.
2. In the Frequency Bands section's Mode list, ensure Default mode is selected.



3. In the Network Mode dropdown select a mode (Auto, 3G only, etc.).
4. In the Preset dropdown, select either All Bands or Low Frequency.

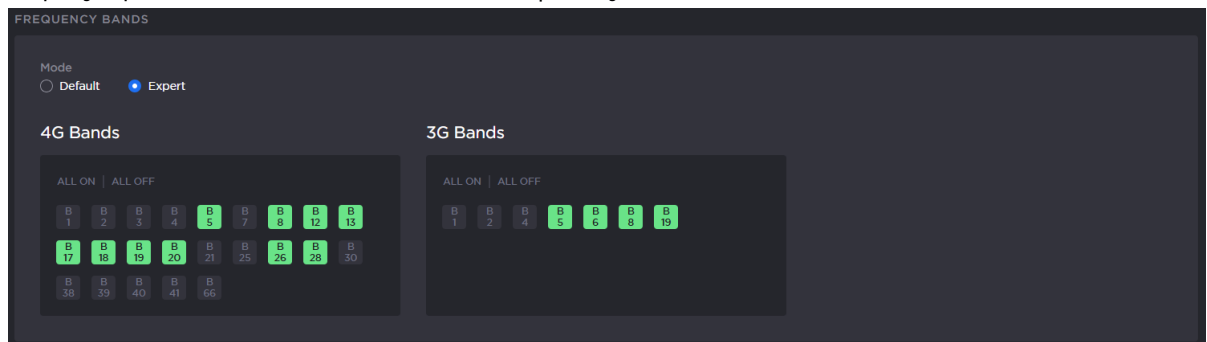
**Note**

Low Frequency bands are useful for indoor operations.

5. Click the **Apply** button.

Expert Mode

1. From the Dashboard, in the Network Sections, click the  icon on an active modem line.
2. In the Frequency Bands section's Network Mode dropdown, select Expert mode. The display updates to show the various frequency bands.



3. Enabled bands show a green background, while disabled bands show a dark gray background. Click each icon to enable/disable them as desired.
4. Click the **All On** and **All Off** buttons to enable/disable all frequencies within the respective 4G or 3G bands.
5. Click the **Apply** button.

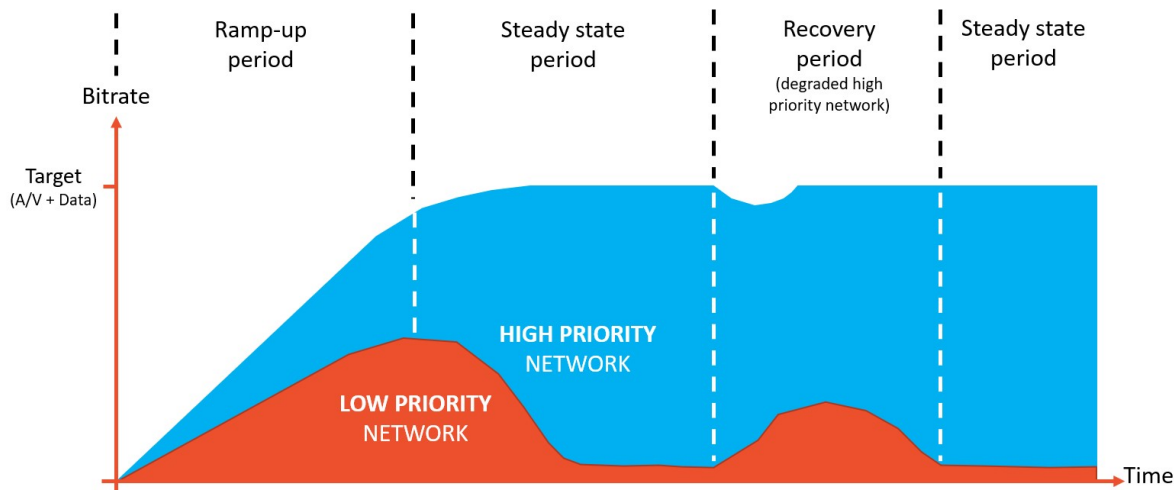


Note

- 5G modem bands are available for Pro360-5G only.
- Selecting the carrier-specific firmware may be mandatory to comply with some local regulations (e.g. Japan). In common cases, you should always keep the generic firmware selected. Should you have any doubt, please contact our support team.

Managing Priorities of Network Links

You can choose a priority level (High or Low) for each network link used for Live operations. These priorities are managed as shown in the diagram below:



For Live

- Both high and low priority links are used as long as the bitrate target set in the Live profile has not been reached.
- When the bitrate target is reached, high priority links are mainly used.

For Forward

- Both high and low priority links are used as long as the bitrate target is lower than 1Mbps.
- When the bitrate target is lower than 1Mbps, low priority links are mainly used.

By default, each network link is set as a high priority link. This setting can be changed, either from the unit panel or from the Web Interface, before starting an operation or while the operation is in progress:

- **Unit panel:** Select the priority level when configuring network links (see [Configuring an Ethernet Interface](#)).
- **Web interface:** For each network link, click on the icon in the Priority column to select High (★) or Low (☆) priority.

Networks					VIEW NETWORKS	
Interfaces					All	Enabled
CONNECTION	STATUS		TX BITRATE	PRIORITY		
Ethernet 1	10.130.6.145		36.4 kbps	★	⚙️	
4G Modem 1	Orange F - B1		1.63 kbps	★	⚙️	🔴
4G Modem 2	Orange F - B7		1.63 kbps	☆	⚙️	🔴

Configuration

Topics Include

- [Configuring the Unit Name](#)
- [Configuring the Time and Date](#)
- [Selecting the Language](#)
- [Selecting the Battery Model](#)
- [Enabling/Disabling the Unit Location](#)
- [Enabling/Disabling Auto-Live at Startup](#)
- [Enabling/Disabling Screensaver](#)
- [Selecting the Video Source](#)
- [Selecting the Audio Source](#)
- [Configuring Live Profiles](#)
- [Configuring Record Profiles](#)
- [Configuring Destination Profiles](#)
- [Enabling / Disabling AES encryption](#)
- [Configuring Forward Settings](#)

Configuring the Unit Name

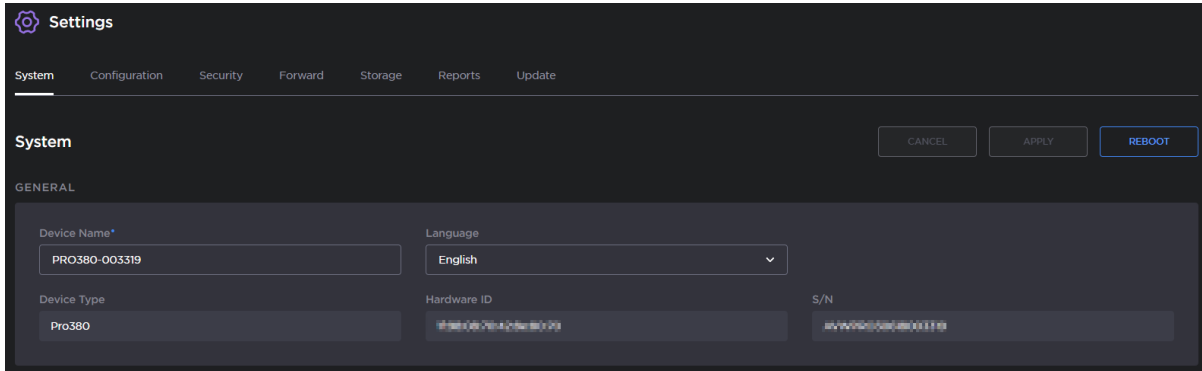
Giving a significant name to the unit allows you to identify it easily on a receiver's (StreamHub, Hub360, etc.) interface. To configure the unit name from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Product Identifier**.
2. Use the keyboard to enter an ID and tap  to confirm.

Web Interface

1. From the Dashboard, in the sidebar click **Settings** > **System**.
2. In the Device Name field, enter an ID (up to 21 characters).



The screenshot shows the 'Settings' page with the 'System' tab selected. The 'System' section has a 'GENERAL' subsection. The 'Device Name' field is highlighted with a red asterisk and contains the text 'PRO380-003319'. The 'Language' dropdown menu is set to 'English'. The 'Device Type' field is set to 'Pro380'. The 'Hardware ID' field contains a hexadecimal string '88106781258029'. The 'S/N' field contains a hexadecimal string '244528280119'. At the top right of the 'System' section are three buttons: 'CANCEL', 'APPLY', and 'REBOOT'.

3. Click the **Apply** button.

Configuring the Time and Date

To configure the time and date from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Date**.
2. (Optional) Enable the **Use NTP** toggle and enter an NTP Server address in the field below.



Tip

After entering the address of the NTP server you wish to use, click the **Test** button to ensure you can connect to it.

3. Set the date and time and tap  to confirm.



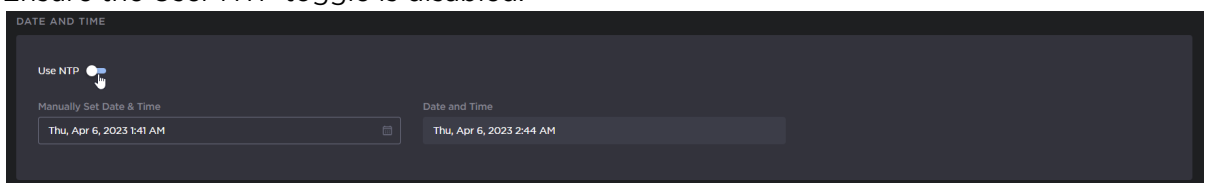
Note

The Date and Time format is set to: YYYY-MM-DD HH:MM.

Web Interface

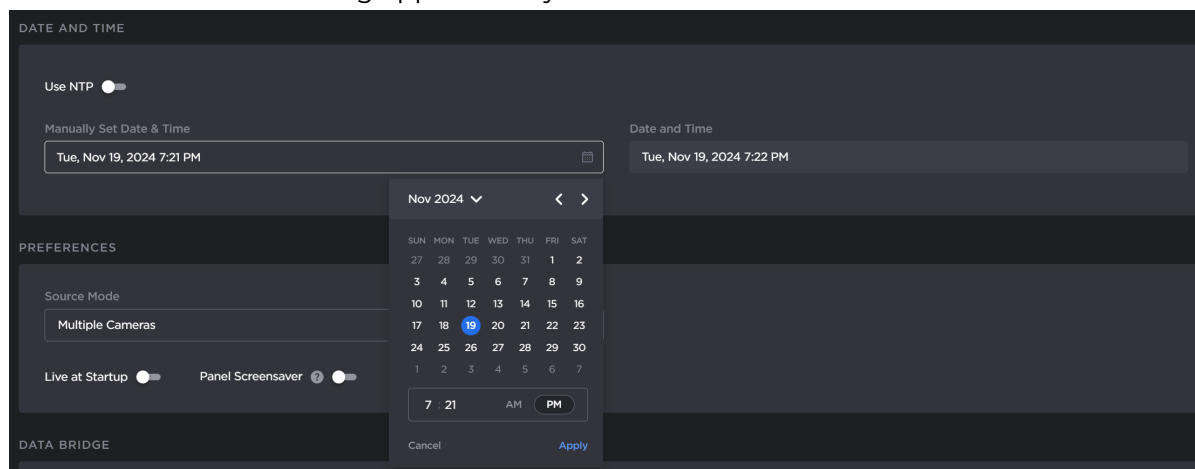
Set Date & Time manually

1. In the sidebar, click **Settings** > **System**.
2. Ensure the User NTP toggle is disabled.



3. Click within the **Manually Set Date & Time** field.

A calendar and clock dialog appears for you to select the date and time:



4. Click **Apply** in the dialog.
5. Click the **Apply** button.

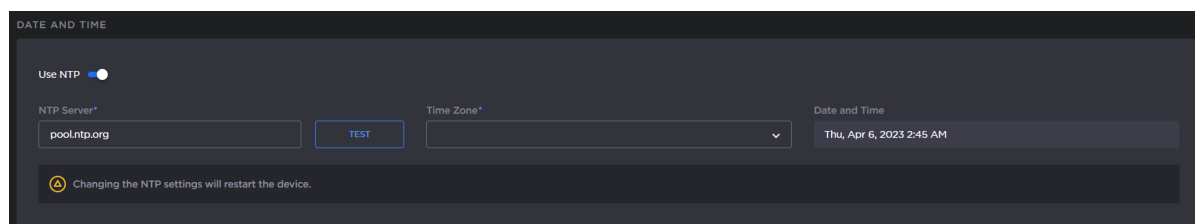
Set Date & Time via NTP Server

1. In the sidebar, click **Settings > System**.
2. Click the **Use NTP** toggle button to enable NTP server.
3. Enter a valid NTP Server address in the available field.



Tip

After entering the address of the NTP server you wish to use, click the **Test** button to ensure you can connect to it.



4. Select the desired **Time Zone** from the dropdown list.
5. Click the **Apply** button.



Note

The device reboots after you change the NTP settings.

Selecting the Language

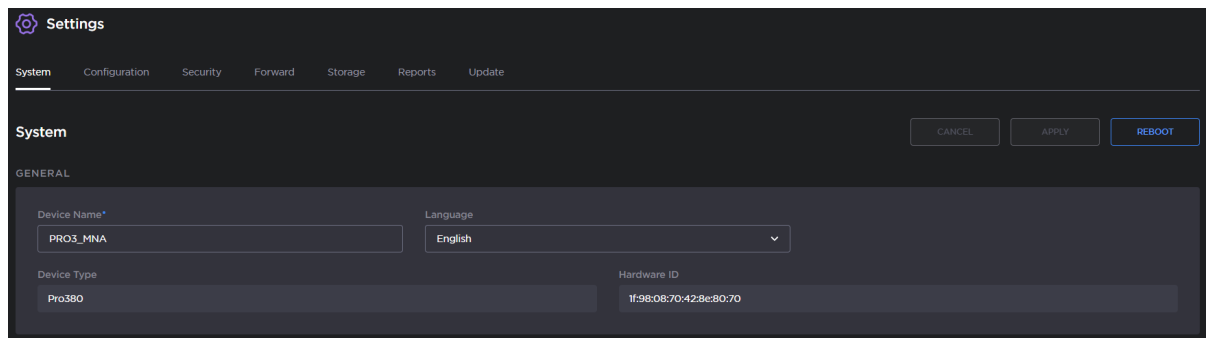
The unit panel and web interface supports the following languages: English, French, Spanish, Portuguese, and Chinese. To select the language from the Unit Panel or from the Web Interface, see the sections below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Language**.
2. Tap the desired language.

Web Interface

1. In the sidebar click **Settings** > **System**.
2. In the General section's **Language** dropdown, select the desired language.



3. Click the **Apply** button.

Selecting the Battery Model

To select the battery model from the Unit Panel, or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Battery model**.
2. Select your battery from the list.



Note

- If the battery used is not listed, select **Generic**.
- When Selecting IDX Endura, battery stats are improved.

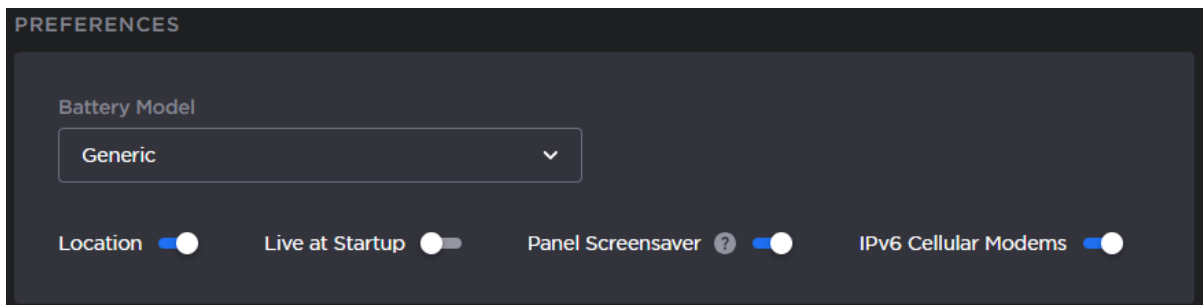
Web Interface

1. In the sidebar, click **Settings** > **System**.
2. In the Preferences section's **Battery model** dropdown, select your battery.



Note

- If the battery used is not listed, select **Generic**.
- When Selecting IDX Endura, battery stats are improved.



3. Click the **Apply** button.

Enabling/Disabling the Unit Location

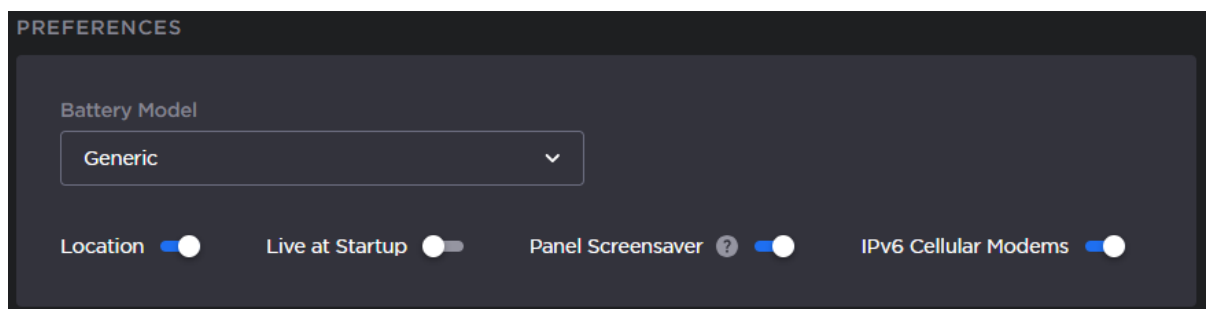
You can enable or disable the unit location to allow (or prevent) the Manager application to locate the unit. To enable or disable unit location from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Location**.
2. Tap the **Location** toggle button to enable or disable the unit location.

Web Interface

1. In the sidebar, click **Settings** > **System**.
2. In the Preferences section, click the **Location** toggle button to enable or disable the unit location.



3. Click the **Apply** button.

Enabling/Disabling Auto-Live at Startup

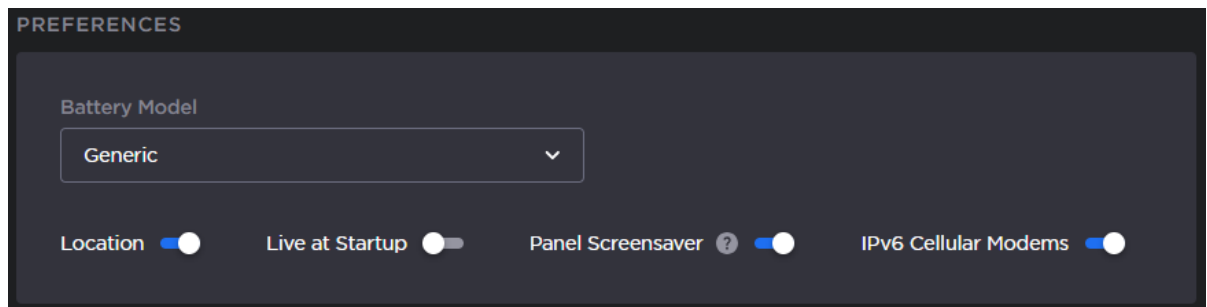
This option allows you to start a Live automatically after the unit is connected to a StreamHub or a Manager and a video source is present. To enable or disable Auto-Live at startup from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Auto-Live at Startup**.
2. Tap the toggle button to enable or disable Auto-Live at Startup.

Web Interface

1. In the sidebar, click **Settings** > **System**.
2. In the Preferences section, click the **Live at Startup** toggle button to enable or disable Auto-Live at Startup.



3. Click the **Apply** button.

Enabling/Disabling Screensaver

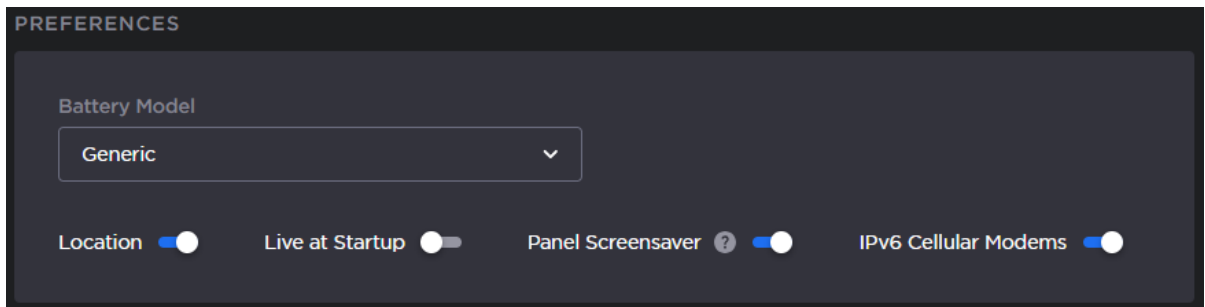
This option displays a screensaver during a Live, a Record, or a Forward. To enable or disable a screensaver from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > **General** > **Operation Screensaver**.
2. Tap the toggle button to enable or disable the screensaver.

Web Interface

1. In the sidebar, click **Settings** > **System**.
2. In the Preferences section, click the **Panel Screensaver** toggle button to enable or disable the screensaver.



3. Click the **Apply** button.

Selecting the Video Source

To select amongst the following sources from the Unit Panel or the Web Interface, see the tabs below.

- Auto (Default)
- SDI input
- HDMI input - SD (PAL/NTSC) standard is not supported
- Pattern (Internal Pattern Generator)



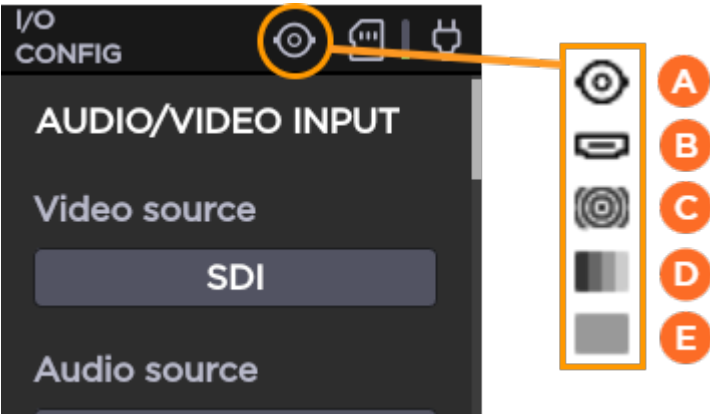
Note

- When selecting the Pattern generator as the source, you can select a specific pattern to be generated. The pattern options are: color circles, color bars or flat black.
- You can also select one of the following standards: NTSC, PAL, 720p50, 720p59.84, 720p60, 1080p25, 1080p29.97, 1080i59.94, 1080i60, 1080p50, 1080p59.94 and 1080p60.
- When Auto mode is selected, the following rules are applied:

SDI Input Presence	HDMI Input Presence	Selected Input
✓	✗	SDI
✗	✓	HDMI
✓	✓	SDI

Unit Panel

1. From the **Home** menu, tap > > **Video Source** .
2. Select the expected source.
When selecting **Pattern**, the **Pattern Shape** and the **Pattern Standard** fields appear. On the upper part of the screen, an icon indicates the selected source:

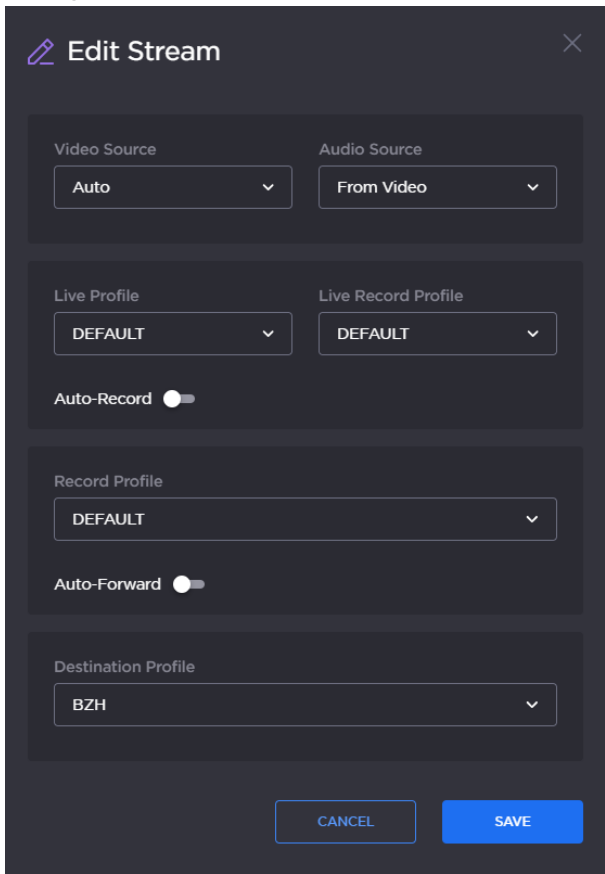


- A SDI
- B HDMI
- C Color circles pattern
- D Color bars pattern
- E Black pattern

3. Tap  to preview the video.

Web Interface

1. On the Dashboard, in the **Streams** section, click the  icon to open the Edit Stream dialog.



Edit Stream

Video Source: Auto

Audio Source: From Video

Live Profile: DEFAULT

Live Record Profile: DEFAULT

Auto-Record: ☐

Record Profile: DEFAULT

Auto-Forward: ☐

Destination Profile: BZH

CANCEL SAVE

2. Select the Video Source in the drop down list.

**Note**

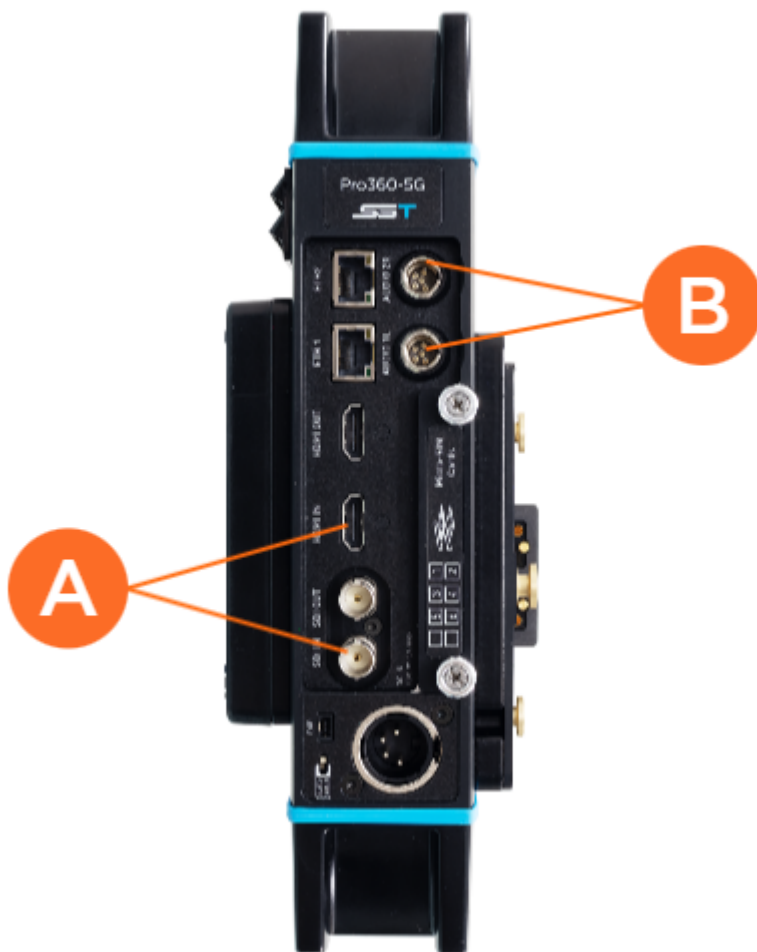
- If you select SDI, HDMI, or Auto, the video resolution is automatically detected.
- If you select Pattern, go to **Streaming > Input/Output** to define the shape and the resolution to be used.

3. Click the **Save** button.

Selecting the Audio Source

You can select amongst two options:

- From Video – When using the SDI or HDMI inputs **A**, the audio is embedded in the video source.
- Analog (Balanced) – The analog audio inputs **B** are used to connect to an analog audio source.



Unit Panel

1. From the **Home** menu, tap > .
2. Tap . The current source is displayed.
3. Tap the **Audio source** field to select another source.
When Audio source is set to Analog, the Audio Level field appears.

4. Tap **−** or **+** to adjust the analog input level.

**Note**

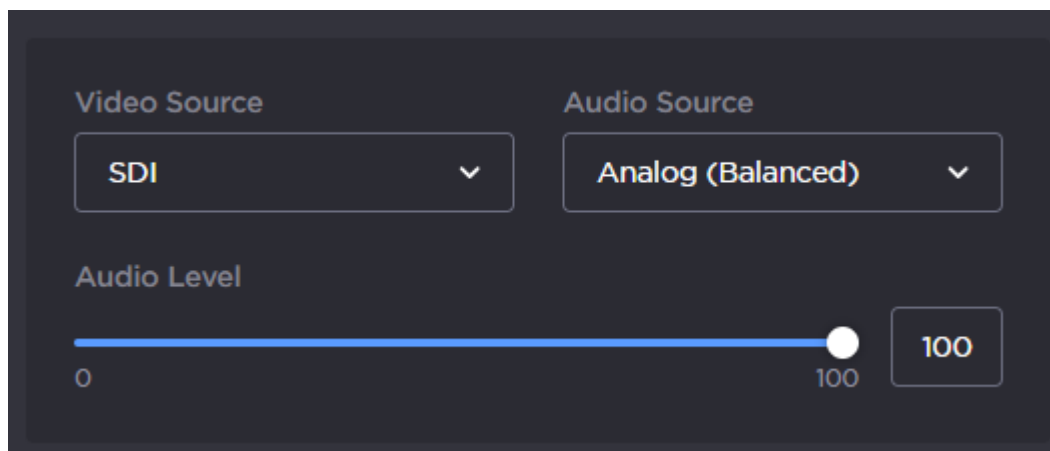
- 0% is for audio muted.
- 100% is for the max applicable gain.

Web Interface

1. From the dashboard, click .
2. In the **Audio Source** field, select the audio source amongst 2 options:
 - From Video
 - Analog (Balanced)
3. When the audio source is analog, move the **Audio level** cursor to adjust it.

**Note**

- 0% is for audio muted.
- 100% is the max applicable gain.



Configuring Live Profiles

A **Live Profile** is a set of audio and video settings configured to fit within specific broadcasting requirements. Live Profiles can be configured from either the Web Interface or on the Unit Front Panel.

The unit is delivered with three (3) default Live Profiles:

- DEFAULT
- LOW DELAY
- HQUALITY 10s

Recommendations when configuring a Live Profile:

End-to-End Latency (by Application type)	Broadcast Over SST mode	For CBR, enter a value within the 500ms - 10s range. For VBR, enter a value within the 800ms - 10s range.	
	Broadcast over SRT mode		
	Video Return		
Bitrate Control Mode	CBR mode for streaming over managed networks. VBR mode for streaming over unmanaged networks.		
Resolution	As source for an encoding in the same resolution as source. Dynamic when the resolution is adapted to available bitrate (H.264 only).		
Live Bitrate (static resolution as source)	Video Resolution	Bitrate Range	
		H.265/HEVC	H.264/AVC
	1080p 50/59.94/60	600 kbps - 20 Mbps	3 - 20 Mbps
	1080p 25/29.97/30	600 kbps - 20 Mbps	1.8 - 20 Mbps
	1080i 50/59.94/60	300 kbps - 20 Mbps	1.8 - 20 Mbps
	720p 50/59.94/60	300 kbps - 20 Mbps	1.4 - 20 Mbps
	SD (PAL or NTSC)	200 kbps - 20 Mbps	0.5 - 20 Mbps
Live Bitrate (dynamic resolution)	1080p 50/59.94/60	-	200 Kbps - 20 Mbps
	1080p 25/29.97/30		
	1080i 50/59.94/60		
	720p 50/59.94/60		
	SD (PAL or NTSC)		
Manual Resolution	1080p 50/59.94/60	-	3 - 20 Mbps
	1080p 25/29.97/30		1.8 - 20 Mbps
	1280 x 720p		1.4 - 20 Mbps
	854 x 480p		0.5 - 20 Mbps
	640 x 360p		0.4 - 20 Mbps
	426 x 240p		0.3 - 20 Mbps
Audio Settings	Channel Layout	Bitrate Range	
	1 x Mono	32 - 256 kbps	

	1 x Stereo	64 - 512 kbps
	2 x Mono	64 - 512 kbps
	2 x Stereo	128 - 1024 kbps

The following Transport Stream settings are available if the Application type is set to Broadcast SRT:

Bitrate Control	VBR CBR
TS ID	1 - 1023
Program Number	1 - 1023
PMT PID	32 - 8191
PCR PID	32 - 8191
Video PID	32 - 8191
Audio PID	32 - 8191

Configuring a Broadcast Live Profile

To configure a broadcast Live Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > .
2. Tap the **Profile Name** field and enter a new profile name.
3. Tap  to confirm the new profile name.
4. Tap the **Application** field and choose between **Bcast (SRT)** or **Bcast (SST)**.
5. Tap the **End-to-End Latency** field to adjust the latency.
6. Tap  and tap the **BGAN profile** field to select a BGAN profile if required.



Note

To select a **BGAN Profile**, ensure that one already exists. See [Configuring a BGAN Profile](#).

7. Tap the **Encoder Type** field and choose between H.264/AVC and H.265/HEVC.
8. (SST Live Profiles only) Tap the **Bitrate Control** field and choose between VBR and CBR.
9. Tap the **Capped Bitrate** field to enter a new bitrate.
10. In the Audio settings, tap the **Channel Layout** field and choose between: 1x Mono, 1x Stereo, 2x Mono, 2x Stereo, 4x Mono, 4x Stereo, 8x Mono, and No audio.
11. Tap the **Bitrate** field to adjust bitrate.
12. Tap  and select **ADVANCED+**.



Note

Advanced parameters are only available if the **Encoder Type** is H.264.

13. Tap the toggle button to enable **I and P frames only**.
14. Tap the toggle button to enable **Manual Resolution**.
15. If you enabled Manual Resolution, tap the **Resolution** field to display the resolution list, and select the resolution you want to apply.



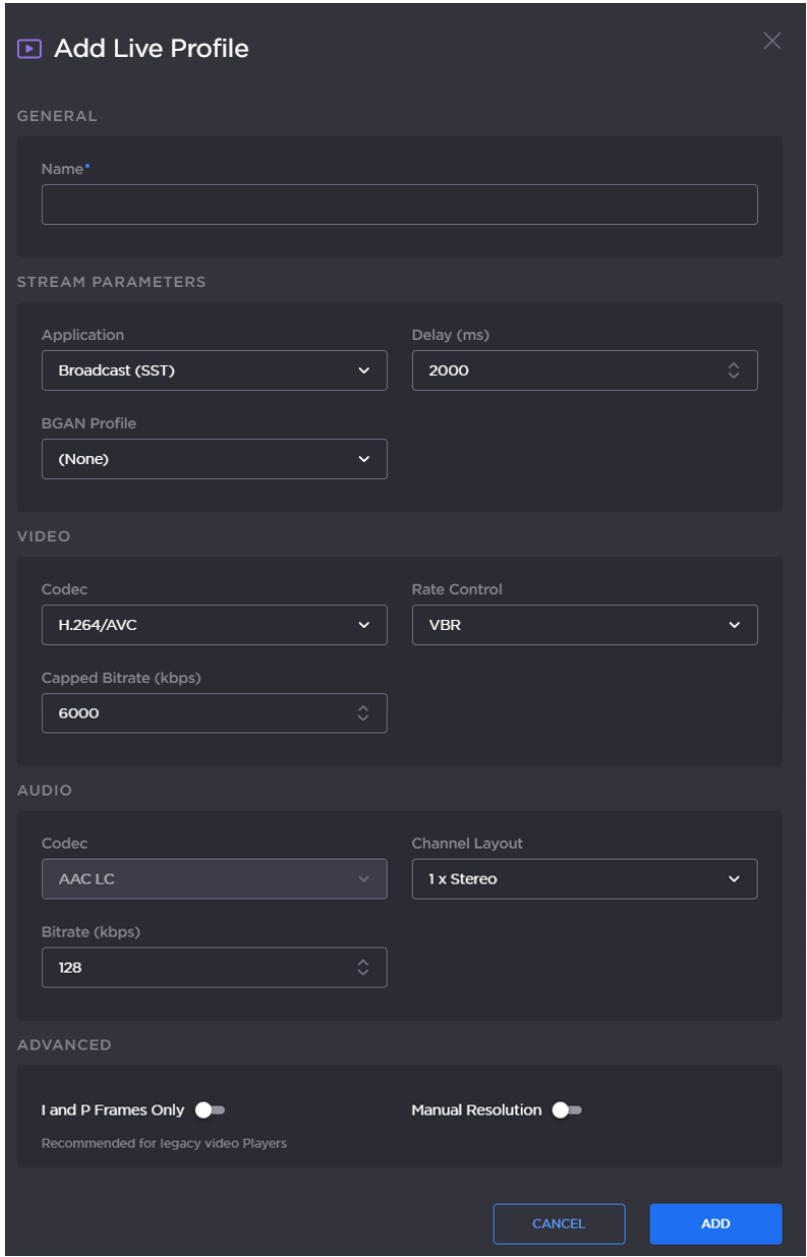
Note

Only downscaling or same resolution are supported.

16. Tap  to save the new Broadcast Live Profile settings.

Web Interface

1. In the sidebar, click **Streaming > Live**.
2. Click the **Add Profile** button.
3. The Add Live Profile dialog appears.



Add Live Profile

GENERAL

Name*

STREAM PARAMETERS

Application: Broadcast (SST) Delay (ms): 2000

BGAN Profile: (None)

VIDEO

Codec: H.264/AVC Rate Control: VBR

Capped Bitrate (kbps): 6000

AUDIO

Codec: AAC LC Channel Layout: 1 x Stereo

Bitrate (kbps): 128

ADVANCED

I and P Frames Only ☐ Manual Resolution ☐

Recommended for legacy video Players

CANCEL ADD

4. Enter a profile name in the **Profile Name** field.

5. Fill in all parameters. For details on Broadcast Live Profile parameters, see [Configuring Live Profiles](#).

**Note**

To select a **BGAN Profile** (SST Live Profiles only), ensure that one already exists. See [Configuring a BGAN Profile](#).

6. Click the **Add** button.

Configuring a Video Return Live Profile

To configure a video return Live Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  >  > .
2. Tap the **Profile Name** field and enter the new profile name.
3. Tap  to confirm the new profile name.
4. Tap the **Application** field and choose **Video Return**.
5. Tap the **End-to-End Latency** field to adjust the latency.
6. Tap the **Bitrate** field to enter a new bitrate.
7. In the Audio settings, tap the **Channel Layout** field and choose between: 1x Mono or 1x Stereo.
8. Tap  and select **ADVANCED+**.
9. Tap the toggle button to enable **Optimization for LiveGuest**.
10. Tap the toggle button to enable **Manual Resolution**.
11. If you enabled Manual Resolution, tap the **Resolution** field to display the resolution list, and select the resolution you want to apply.
12. Tap  to save the new Video Return Live Profile settings.

Web Interface

1. In the sidebar, click **Streaming > Live**.

2. Click the **Add Profile** button. The Add Live Profile dialog appears:

Add Live Profile

GENERAL

Name*

STREAM PARAMETERS

Application: Video Return (dropdown)
Delay (ms): 500 (spinner)

VIDEO

Codec: H.264/AVC (dropdown)
Rate Control: CBR (dropdown)
Bitrate (kbps): 1000 (spinner)

AUDIO

Codec: AAC LC (dropdown)
Channel Layout: 1 x Stereo (dropdown)
Bitrate (kbps): 64 (spinner)

ADVANCED

Optimization for LiveGuest: ☐
Manual Resolution: ☐

CANCEL ADD

3. Enter a profile name in the **Profile Name** field.
4. Set the **Application** to Video Return.
5. Set a **Delay** between 500 and 10000 ms.
6. In the **Video** settings, set a bitrate between 200 and 6000 kbps.

7. In the **Audio** settings, select a **Channel Layout** between: 1x Mono or 1x Stereo.
8. Click the toggle button to enable **Optimization for LiveGuest**.
9. Click the toggle button to enable **Manual Resolution**.
10. Click the **Add** button.

Deleting a Live Profile

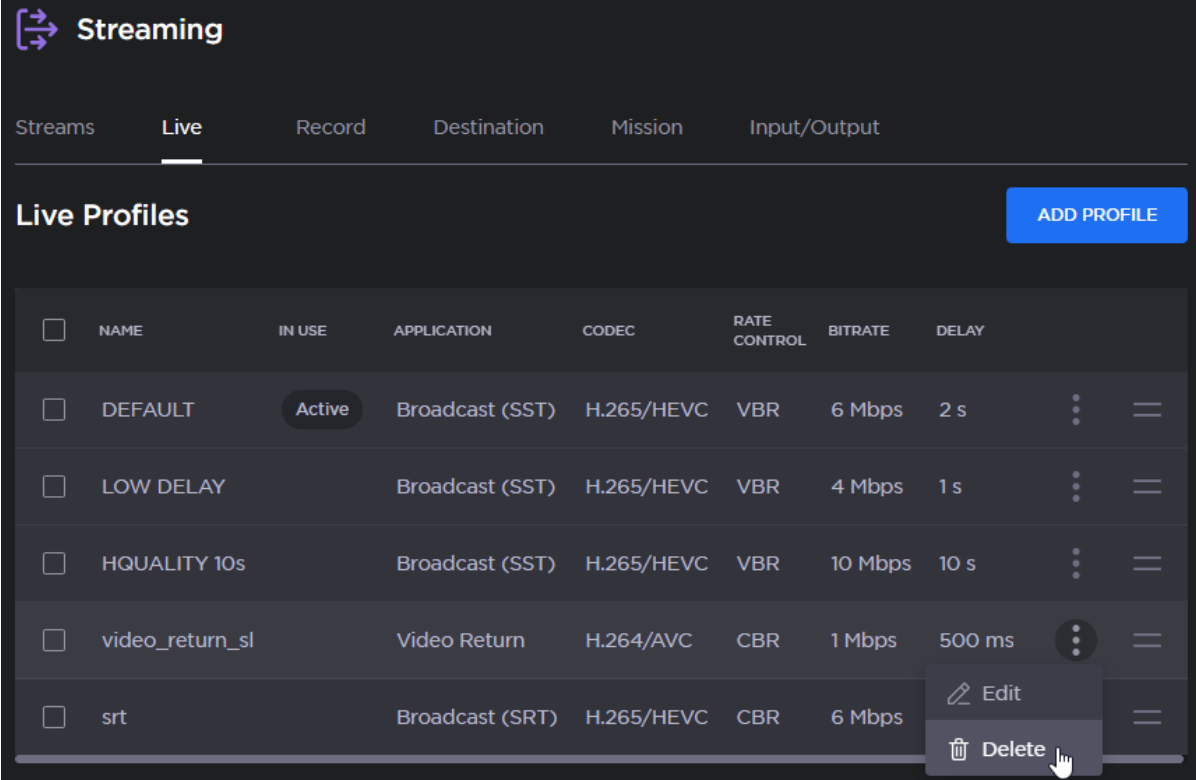
To delete a Live Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, click  > .
2. Tap  to display the profile to delete.
3. Tap and hold the profile to delete.
4. Tap **YES** to confirm the profile deletion.

Web Interface

1. In the sidebar, click **Streaming > Live**.
2. Click the  next to the live profile you wish to delete. Then click **Delete**.



The screenshot shows the 'Streaming' section with the 'Live' tab selected. Below the tabs, there's a 'Live Profiles' section with an 'ADD PROFILE' button. A table lists the profiles with columns: NAME, IN USE, APPLICATION, CODEC, RATE CONTROL, BITRATE, and DELAY. The 'video_return_sl' profile is selected, and a context menu is open showing 'Edit' and 'Delete' options.

NAME	IN USE	APPLICATION	CODEC	RATE CONTROL	BITRATE	DELAY
DEFAULT	Active	Broadcast (SST)	H.265/HEVC	VBR	6 Mbps	2 s
LOW DELAY		Broadcast (SST)	H.265/HEVC	VBR	4 Mbps	1 s
HQUALITY 10s		Broadcast (SST)	H.265/HEVC	VBR	10 Mbps	10 s
video_return_sl		Video Return	H.264/AVC	CBR	1 Mbps	500 ms
srt		Broadcast (SRT)	H.265/HEVC	CBR	6 Mbps	



Note

To reorder the profiles, drag and drop them by holding .

Selecting a Live Profile

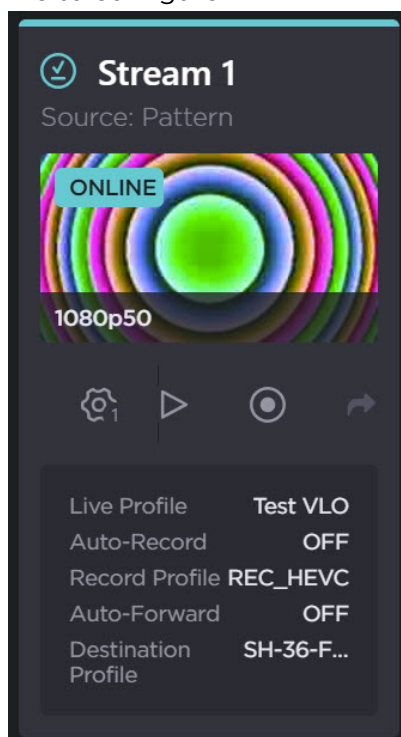
To select a Live Profile from the Unit Panel or from the Web Interface, choose from the following tabs.

Unit Panel

You can select a Live Profile from the Unit Panel when starting a Live. For instructions, see [Starting a Live](#).

Web Interface

1. From the dashboard, in the Streams section, click the  icon on the stream you would like to configure.



2. From the Edit Stream dialog, select a pre-defined **Live Profile** from the dropdown list.

The screenshot shows the 'Edit Stream' dialog box. It features a title bar with a pencil icon and the text 'Edit Stream', along with a close button (X). The main content area is divided into two sections. The first section, 'Live Profile', contains a dropdown menu with 'Test VLO' selected and a toggle switch for 'Auto-Record' which is currently turned off. The second section, 'Live Record Profile', contains a dropdown menu with 'REC_HEVC' selected and a toggle switch for 'Auto-Forward' which is also turned off. At the bottom of the dialog are two buttons: 'CANCEL' and 'SAVE'.

3. If required, toggle **Auto-record**.

**Note**

- When this option is enabled, a Record starts automatically when a Live is started.
- The record profile used for the **Auto-record** can be different than the one used for a Record.

4. Click the **Save** button.

Configuring Record Profiles

A **Record Profile** is a set of audio and video settings configured to fit within specific broadcasting requirements. The supported file formats are Transport Stream and MP4. Record Profiles can be configured from either the web interface or on the unit front panel.

The unit is delivered with a DEFAULT Record Profile.

- [Adding a Record Profile](#)
- [Deleting a Record Profile](#)
- [Selecting a Record Profile](#)

Adding a Record Profile

To add a Record Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, click on  > .
2. Tap .
3. Tap the **Profile Name** field.
4. Use the keyboard to enter the new profile name.
5. Tap  to confirm.
6. Tap the **File Format** field and select Transport Stream or MP4 format.
7. Tap  to configure the Record Profile settings:
 - Video Settings (**Encoder Type, Bitrate**). When recording, the video is encoded in CBR mode using the source resolution.
 - Audio Settings (**Encoder Type, Channel Layout, Bitrate**)
8. Tap  to save the new Record Profile settings.

Web Interface

1. In the sidebar, click **Streaming > Record**.

2. Click the **Add Profile** button. The Add Record Profile dialog opens:

Add Record Profile

GENERAL

Name *

PARAMETERS

File Format

MP4

VIDEO

Codec

H.265/HEVC

Chroma Subsampling

4:2:0 8 bits

Bitrate (kbps)

6000

AUDIO

Codec

AAC LC

Channel Layout

1 x Stereo

Bitrate (kbps)

128

CANCEL ADD

3. Enter a profile name in the **Profile Name** field.
4. Choose the **File Format** (Transport Stream or MP4).
5. Choose the video **Encoder Type**.
6. Set the video **Bitrate**.
7. Select the audio **Channel Layout**.
8. Set the total audio **Bitrate**.
9. Click the **Add** button.

Deleting a Record Profile

To delete a Record Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap .
2. Tap  and select .
3. Tap  to display the profile to delete.
4. Press and hold the profile to delete.
5. Tap **YES** to confirm the profile deletion.

Web Interface

1. Click **Streaming > Record**.
2. Click  > **Delete** on the Record Profile to delete.



Note

To reorder the profiles, drag and drop them by holding .

Selecting a Record Profile

You can select different record profiles for:

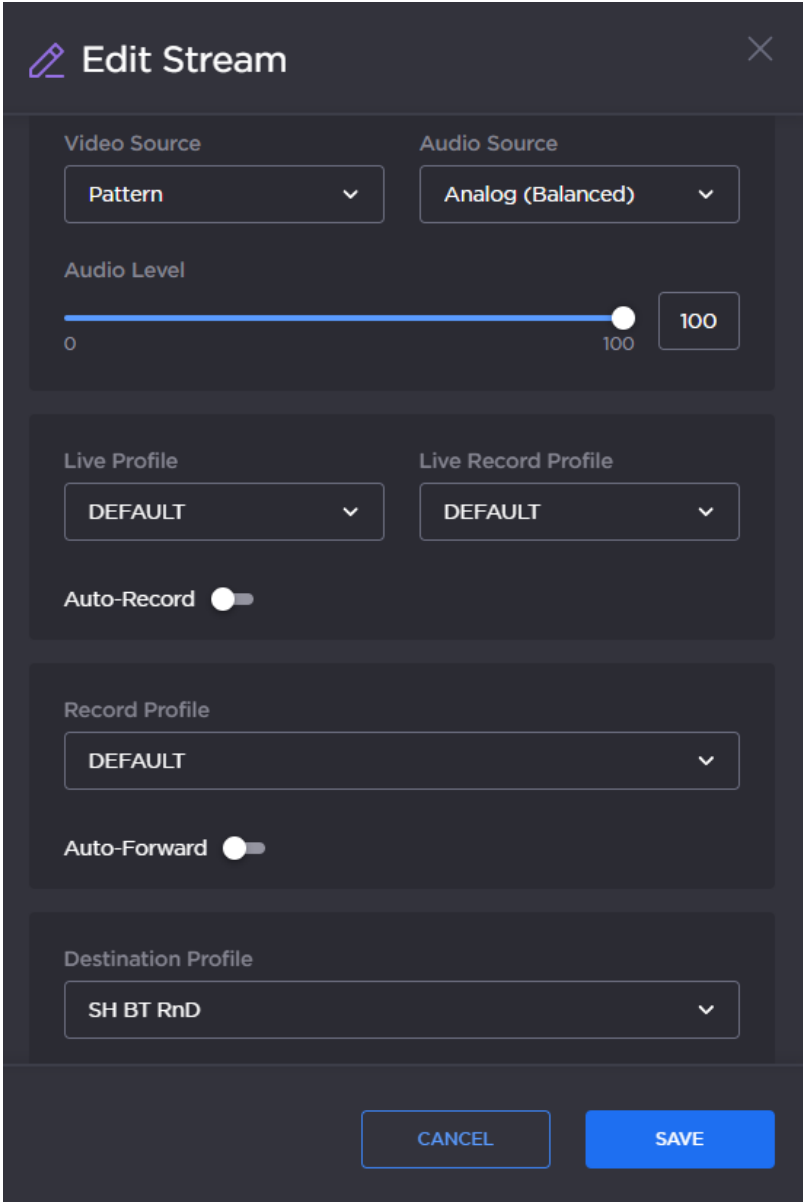
- Live + Auto-record
- Record only

Unit Panel

You can select a Record Profile from the Unit Panel when you are starting a Live or a Record. See [Starting a Record](#) and [Starting a Live](#).

Web Interface

1. From the Dashboard, in the Streams section, click the  icon. The encoder's current settings appear:



Edit Stream

Video Source: Pattern

Audio Source: Analog (Balanced)

Audio Level: 0 to 100 (slider), 100 (input)

Live Profile: DEFAULT

Live Record Profile: DEFAULT

Auto-Record: ☒

Record Profile: DEFAULT

Auto-Forward: ☒

Destination Profile: SH BT RnD

CANCEL SAVE

2. Select a pre-defined **Record Profile** from the dropdown list.
3. If desired, activate the **Auto-Forward** toggle.

**Note**

- When this option is enabled, a Forward starts automatically when a Live starts.
- The record profile used for the **Auto-record** can be different than the one used for a Record only.

Configuring Destination Profiles

A **Destination Profile** is a set of parameters allowing the unit to connect to a StreamHub, a Manager, a Hub360, or an SRT Receiver.



Note

- StreamHub is a web-based platform that receives, decodes, records and distributes video and audio feeds.
- Manager is a web-based platform that monitors and manages a contribution ecosystem. It is in charge of dynamically routing transmitters to the appropriate StreamHub(s).
- HaivisionHub 360 is a cloud-based solution that remotely manages devices, users and all available video sources and destinations. Hub360 enables real-time monitoring, configuration, and control in support of remote production workflows.

- [Adding a Destination Profile](#)
- [Deleting a Destination Profile](#)
- [Selecting a Destination Profile](#)

Adding a Destination Profile

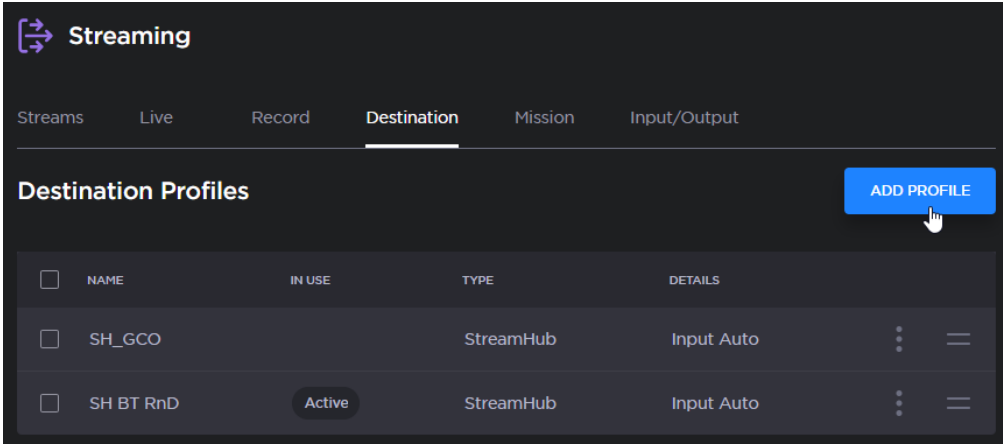
To add a destination Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

- 1. From the Home menu, tap  >  > .
- 2. Tap  to configure the new destination profile settings (see Destination Profile Settings below for details on each destination type).
- 3. Tap  to save the new destination profile settings.

Web Interface

- 1. Click on **Streaming > Destination**.
- 2. Click the **Add Profile** button.



The Add Destination Profile appears:

Add Destination Profile

GENERAL

Name*

PARAMETERS

Type
StreamHub

Host*
Enter IP or Hostname

Input
Auto

Auto-Connect ☒

ADVANCED

Port*
7900

Username*
aviwest

Password*
.....

AES Encryption ☐

AES Key

CANCEL ADD

3. Enter a **Name** for the Profile.
4. Select the type of Destination Profile (StreamHub, Manager, Hub360, or SRT Receiver) in the Type dropdown.
5. Configure the settings as shown in the table below.
6. Click the **Add** button.

To select the newly created Destination Profile, see [Selecting a Destination Profile](#).

Destination Profile Settings



Note

- These settings may have been changed by the system administrator.
- Enable the **Auto-connect** option to automatically connect to a receiver when the unit is powered on.

Hub360	Manager	SRT Receiver	StreamHub
• Please refer to Hub360 user's guide to connect a transmitter to a Hub360. • Auto-connect toggle (Enable/Disable)	• IP address or Hostname • Auto-connect toggle (Enable/Disable) This connection cannot be established through a BGAN terminal. • Port. Default: 9000 • Username. Default: username • Password (if required). Default: password	• SRT mode (Caller or Listener) • Host • SRT port • Ethernet port • Latency • SRT Encryption (and passphrase if enabled) • Stream ID (Caller mode only)	• IP address or Hostname • Input assignment on the StreamHub (Automatic Assignment possible) • Auto-connect toggle (Enable/Disable) This connection cannot be established through a BGAN terminal. • Port. Default: 7900 • Username. Default: aviwest • Password. Default: safestreams • AES key if required

Deleting a Destination Profile

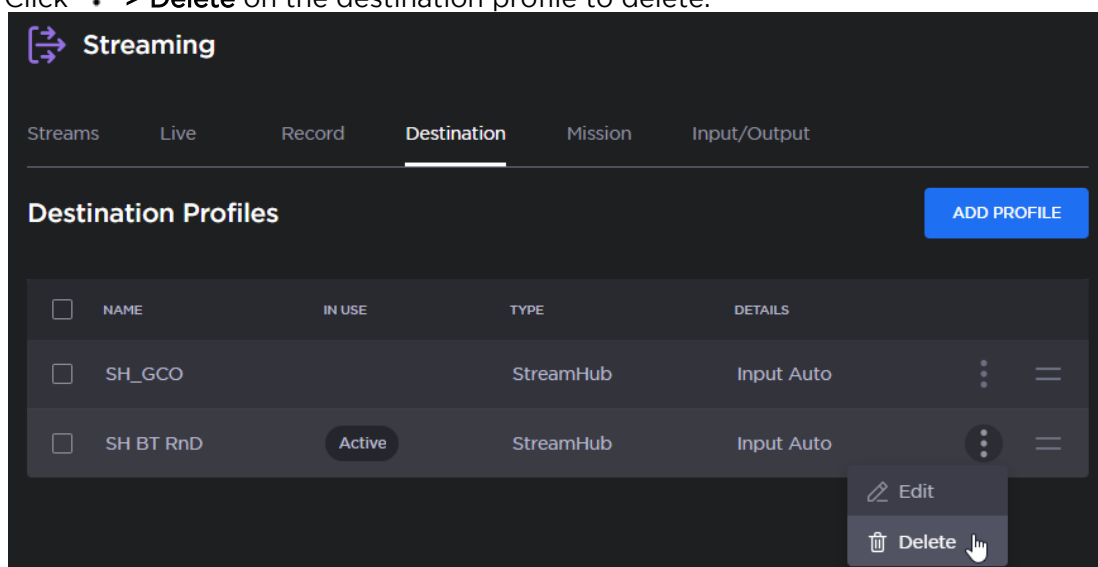
To delete a destination Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the Home menu, tap  > .
2. A green dot () indicates the currently selected profile.
3. Tap  to display the profile to delete.
4. Long press the profile to delete.
5. Tap **YES** to confirm the profile deletion.

Web Interface

1. In the sidebar, click **Streaming > Destination**.
2. Click  > **Delete** on the destination profile to delete.



Note

To reorder the profiles, drag and drop them by holding the  icon.

3. Click the  icon to confirm.

Selecting a Destination Profile

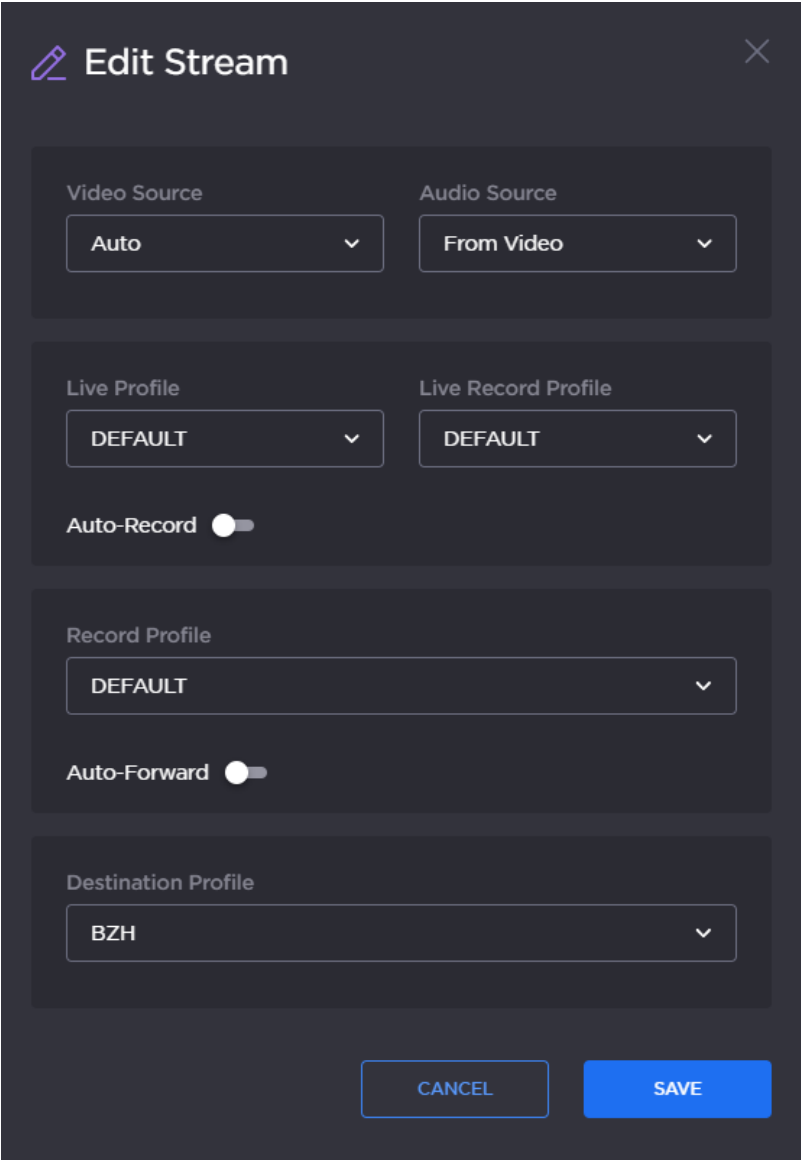
To select a destination Profile from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  > .
2. Tap  until the desired profile is displayed.
3. Tap  to select the destination profile. Its icon turns to a green dot () to indicate it is the currently selected profile.

Web Interface

1. From the dashboard in the Streams section, click the  icon. The encoder's current settings appear:



Edit Stream

Video Source: Auto

Audio Source: From Video

Live Profile: DEFAULT

Live Record Profile: DEFAULT

Auto-Record: ☐

Record Profile: DEFAULT

Auto-Forward: ☐

Destination Profile: BZH

CANCEL SAVE

2. Select a pre-defined profile in the **Destination Profile** dropdown.

**Tip**

If none appear, see [Adding a Destination Profile](#) to add a profile.

3. Click the **Save** button.

Enabling / Disabling AES encryption

You can decide to encrypt a video during a Live operation, provided the destination server's license includes this option.

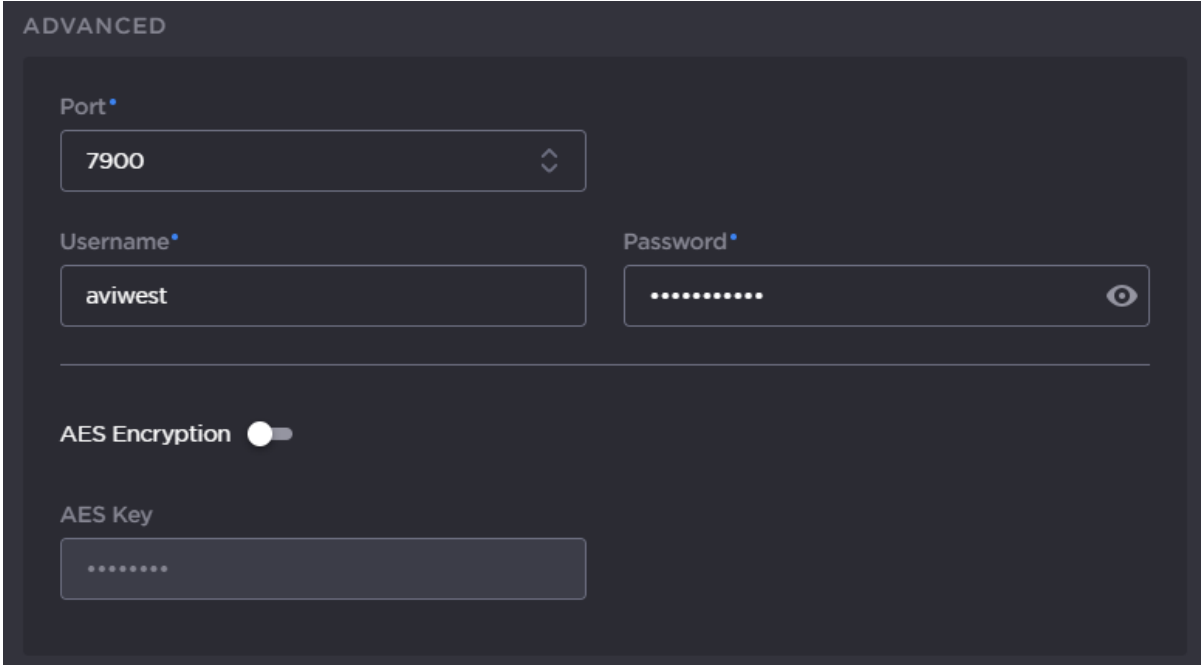
You can enable and disable the video AES encryption from the Unit Panel or the Web Interface.

Unit Panel

1. From the **Home** menu, tap  > .
2. Tap  until the profile concerned is displayed.
3. Tap the destination profile.
4. Tap  and select **ADVANCED +**.
5. Tap  to display the **AES Encryption** option.
6. Tap  to enable it, or  to disable it. If enabled, enter the AES key as defined in the destination server interface (please refer to the *Manager* and *StreamHub User Guides*).

Web Interface

1. Click **Streaming > Destination**.
2. Click  > **Edit** on the Destination Profile where the video is sent to.
3. In the **Advanced** section, click on the toggle button to enable AES encryption.



The screenshot shows the 'ADVANCED' settings section of a destination profile. It includes a 'Port' dropdown menu set to '7900', a 'Username' field with the value 'aviwest', and a 'Password' field with masked characters and an eye icon. Below these is a horizontal separator line. Under the separator, there is an 'AES Encryption' toggle switch which is currently turned on (white). Below the toggle is an 'AES Key' field with masked characters.

4. Enter an AES Key if required.

Configuring Forward Settings

The Forward function offers three possibilities:

- Forwarding one or several files saved on a mass-storage device.
- Forwarding all files saved on a mass-storage device.
- Forwarding the latest recorded file.



Note

Mass storage can be SD cards and USB storage devices.

Unit Panel

1. From the **Home** menu, tap  > .
2. Tap the toggle button to enable or to disable **Resume at Startup**, **Auto-erase**, or/and **Hot Folder** options.



Note

- **Resume at Startup:** If any forward is still in progress when the unit is turned off, it is resumed when the unit is started up.
- **Auto-erase:** All successfully forwarded files are automatically deleted when the forward is complete.
- **Hot Folder:** Files coming from a camera are automatically transmitted via an FTP server.

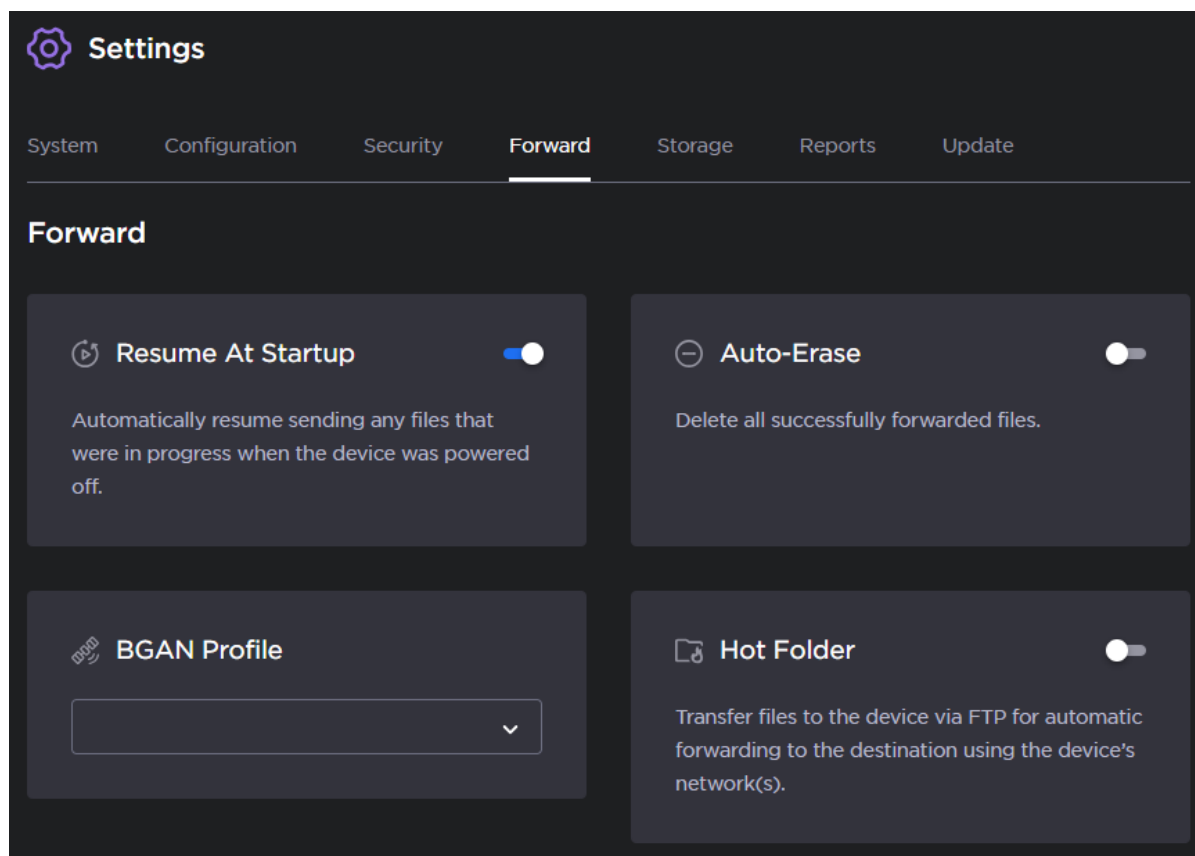


Note

See [Configuring a BGAN Profile](#) for more information.

Web Interface

1. Click **Settings > Forward**.
2. Click the toggle buttons to enable/disable the **Resume at Startup**, **Auto-erase** and/or **Hot Folder** options.



3. Select a BGAN Profile in the drop-down list if required.

**Note**

See [Configuring a BGAN Profile](#) for more information.

Selecting a Mission

To receive missions, the selected destination profile must be a Manager supporting the Story Centric Workflow. See [Selecting a Destination Profile](#). To select a mission from the Unit Panel or from the Web Interface, see the tabs below.

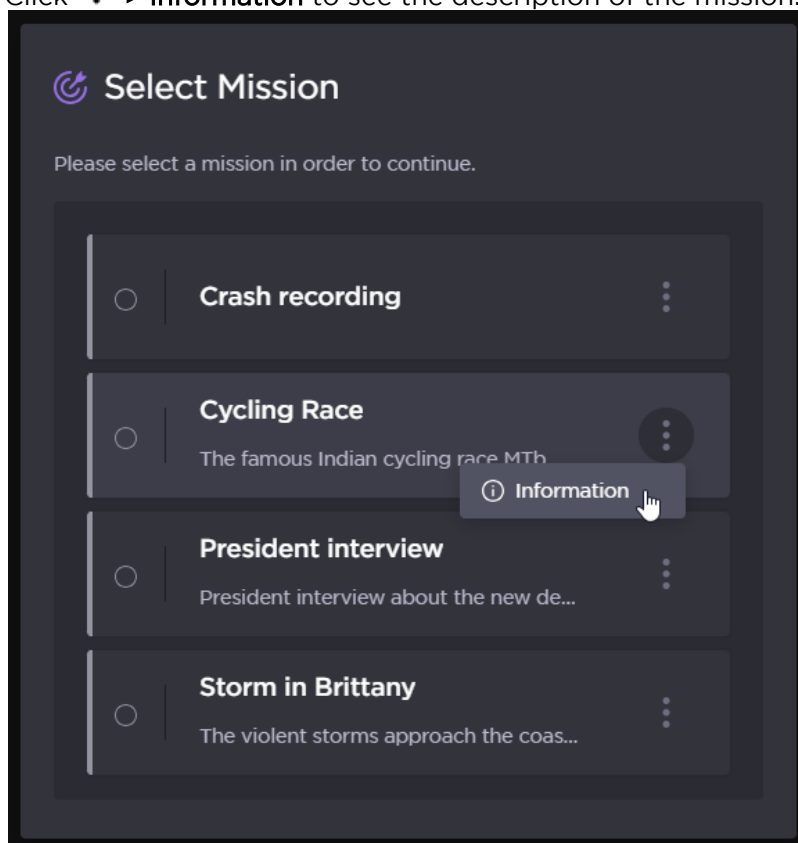
Unit Panel

1. Tap  or  to see the different missions.
2. Tap  to see more information on the mission.
3. Tap  to go back to the previous screen.
4. Tap the mission to select it. It turns to orange while loading.

When the home screen appears with the  icon on the top bar, tap on this icon for more information.

Web Interface

1. A list of missions appears on screen.
2. Click  > **Information** to see the description of the mission.



3. Click a mission to select it.

Changing the Mission

To change a mission from the Unit Panel or from the Web Interface, see the tabs below.

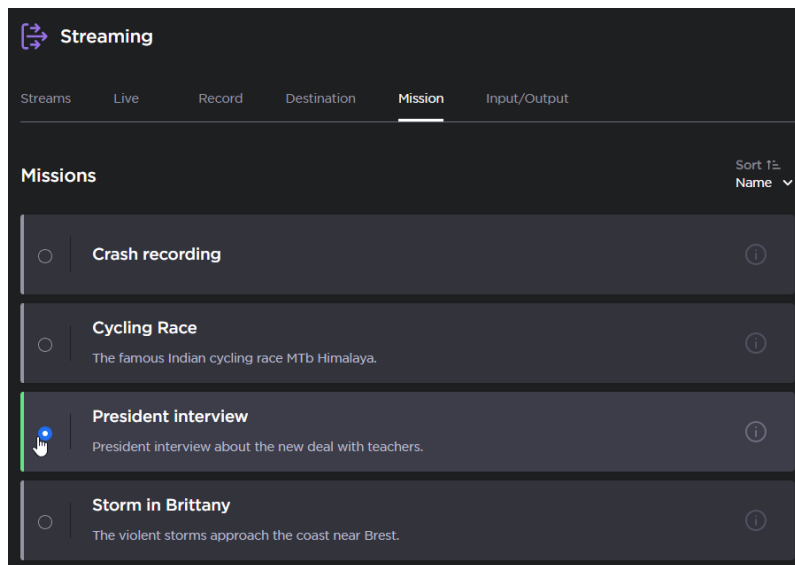
Unit Panel

1. From the Home menu, tap  > .
2. Tap a mission title to display information.
3. Tap  to return to the previous screen.
4. Click on  to change the mission.

A green dot () indicates the newly selected mission.

Web Interface

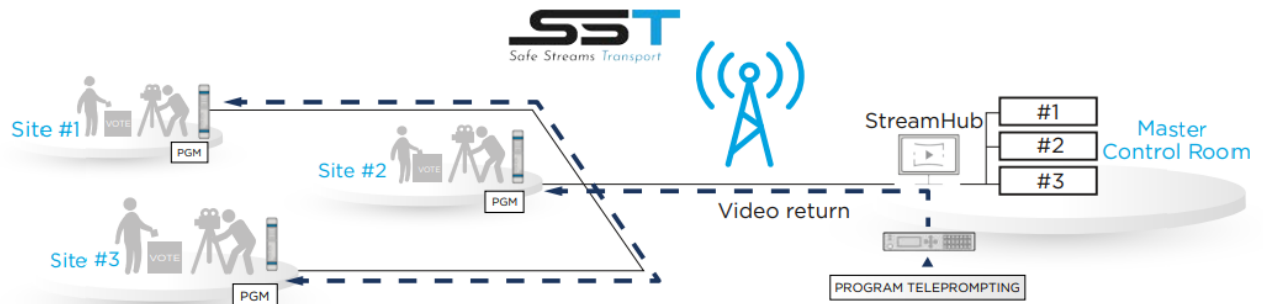
1. In the sidebar, click **Streaming > Mission**.
2. Click another mission to select it.



Setting a Video Return

The **Video Return** feature allows Field Units operating on sites to receive live feeds, such as a program currently on air or a teleprompting from the Media Control Room even if a Live is running or not.

The unit must be connected to a StreamHub to allow the Video Return feature. Please refer to the [StreamHub User's Guide](#) for detailed information.



Emitting a Video Return

To emit a video return from the Unit Panel or from the Web Interface:

1. Create a Live Profile with the Application parameter set to Video Return (see [Configuring a Video Return Live Profile](#)).
2. Start a Live with the previously created profile (see [Starting a Live](#)).

Receiving a Video Return

To receive a video return from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

Check that the video return icon appears on the top bar of the screen. If it appears, the unit is receiving a video stream.

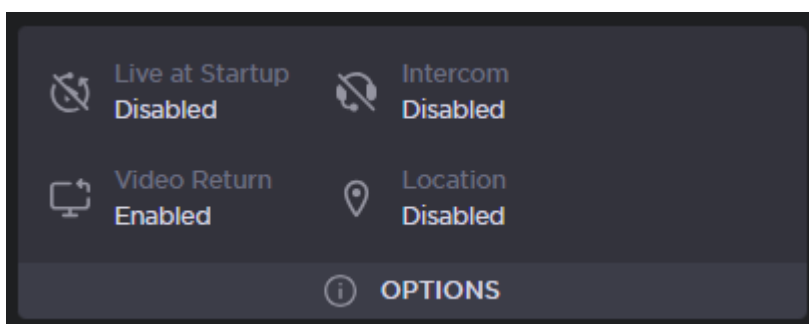
- Connect a monitor to the HDMI port **A** of the unit.



The Video Return icon () appears on the unit's status bar.

Web Interface

In the Dashboard, in the Options section, the Video Return status can be seen.



Starting a Live

You can start a live manually or you can enable the **Auto-live at startup**. See [Enabling/Disabling Auto-Live at Startup](#).

Unit Panel

To start the Live:

1. From the **Home** menu, tap . The video preview appears on screen and the live profile selected is reminded. When tapping  or , the Live menu provides some additional information.



- A** Selected Live Profile
- B** Selected Record Profile
- C** Auto-record is enabled or not (OFF/ON)
- D** The Selected Destination Profile

You can modify these settings before starting the Live action.

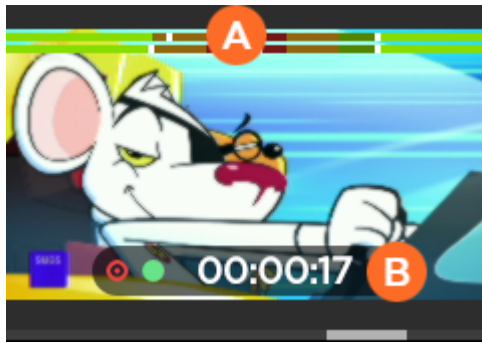
- To select another **Live** profile:
 - i. Tap the  field.
 - ii. Tap another Live profile.
- To select another **Record** profile:
 - i. Tap the  field.
 - ii. Tap another Record profile.
- To modify the **Auto-Record** mode:
 - i. Tap the toggle button to enable or disable Auto-Record.



Note

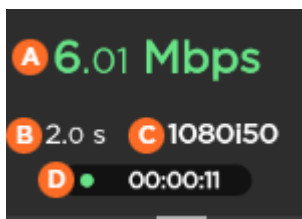
Simultaneous Live and Record in H.264 1080p50/59.94/60 is not supported.

- To select another **Destination profile**:
 - i. Tap the  field.
 - ii. Tap a different Destination profile.
2. Tap  to start the Live. The video preview appears on screen.



- A** Audio Bars indicating Audio Levels
- B** Record Indicator
- C** Live Indicator
- D** Live Duration

3. Tap < to display information about the Live action.

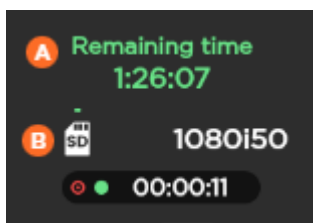


- A** Network Bitrate
- B** End-to-End Latency configured in the Live Profile or modified remotely from StreamHub interface
- C** Source Standard
- D** Live Duration

Note

Refer to the [StreamHub User Guide](#) to set another delay during Live operation.

In case of a live and simultaneous Record, a different screen appears:



- A** Remaining recording time possible on SD card.
- B** Space used on SD card

To stop the Live:

1. Tap .
2. Tap  > **STOP LIVE**.

To stop the Record:

1. Tap .
2. Tap  > **STOP RECORD**.

Web Interface

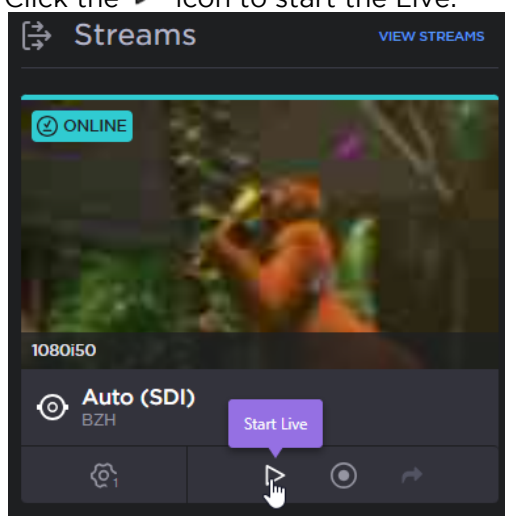
To start the Live:

1. On the Dashboard, in the Streams section, click the  icon to check that the unit settings are configured and selected as required:

Note

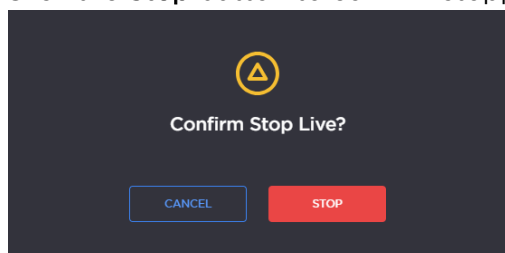
If you enabled the **Auto-record** option, the video file is automatically recorded during the live.

2. Click the **Save** button.
3. Click the  icon to start the Live.



To stop the Live:

1. Click the  icon.
2. Click the **Stop** button to confirm stopping the video transmission.



Starting a Record



Note

Ensure that a SD card is inserted before starting a record. This SD card must not be in read-only (or locked) mode.

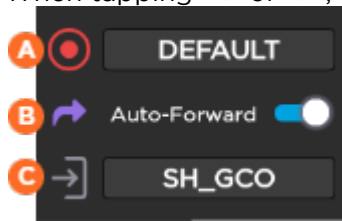
You may start a record via the unit panel or the web interface.

Unit Panel

To start a record:

1. From the **Home** menu, tap . The video preview appears on screen and the selected record profile is displayed.

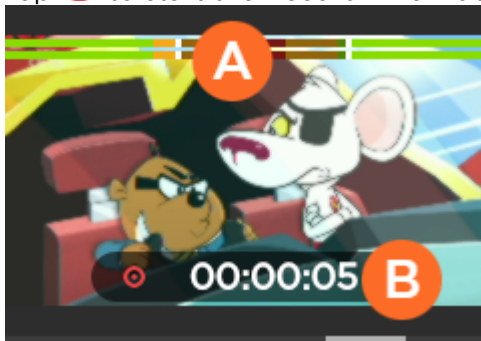
When tapping  or , the Record menu displays additional information.



- A** Selected Record Profile
- B** Auto-record (OFF/ON) Toggle Switch
- C** Selected Destination Profile

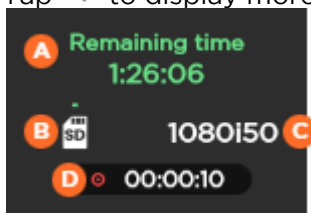
- To select another Record profile:
 - i. Tap the  field.
 - ii. Tap another Record profile.
- To modify the Auto-forward mode:
 - i. Tap the toggle button.
- To select another Destination profile:
 - i. Tap the  field.
 - ii. Tap another Destination profile.

2. Tap  to start the Record. The video preview appears on the screen:



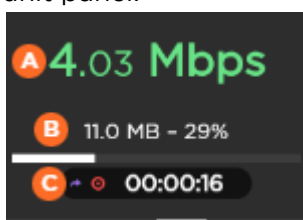
- A** Audio bars indicating audio levels
- B** Record duration

3. Tap  to display more information about the record action.



- A** Remaining recording time possible on SD card
- B** Space used on SD
- C** Source Standard
- D** Record Duration

During a Record and simultaneous Forward, another screen appears when you tap the unit panel:



- A** Network Bitrate
- B** Amount and percentage of data already forwarded (if option enabled)
- C** Record Duration

To stop the Record:

1. Tap .
2. Tap  > **Stop Record**.

To stop the Forward:

1. Tap .
2. Tap  > **Stop Forward**.

Web Interface

To start the Record:

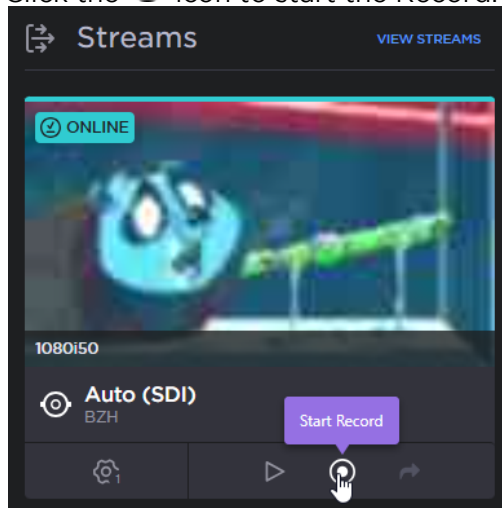
1. On the Dashboard, in the **Streams** section, click the  icon to check that the unit settings are configured and selected as required:



Note

If you enable the **Auto-forward** option, the video file is automatically forwarded during the record.

2. Click the  icon to start the Record.



To stop the Record:

1. Click the  icon > **Stop**.

To stop the Forward:

1. Click the  icon > **Stop**.

Starting a Forward

You can choose to forward the last record, a selection of records, or all files from the Unit Panel or from the Web Interface. See the tabs below.



Note

Ensure a mass storage device, such as an SD card or a USB memory stick, is connected to the unit.

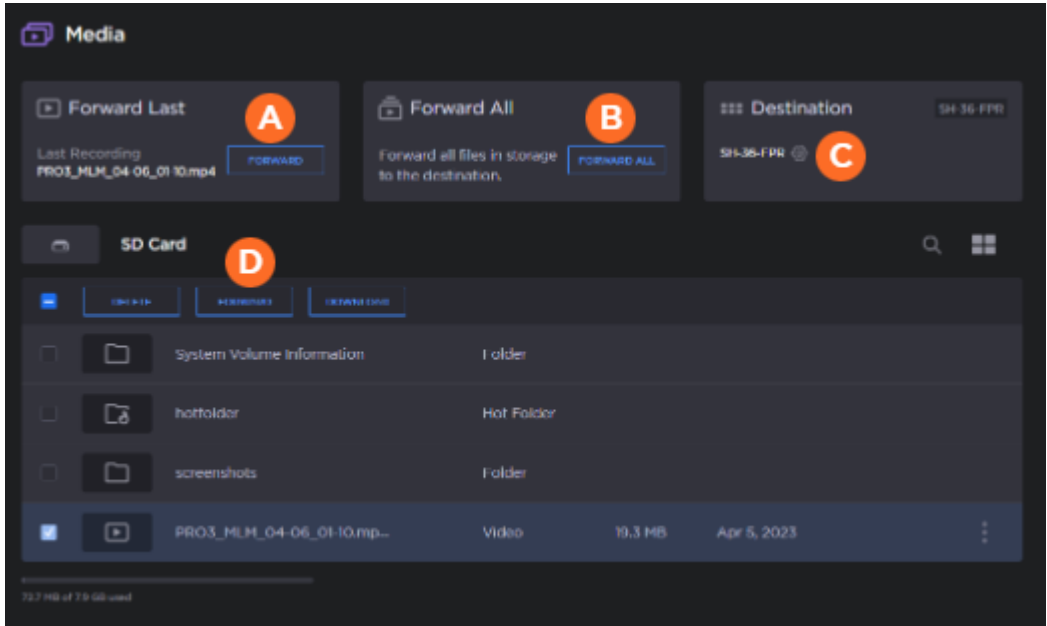
Unit Panel

From the **Home** menu, tap . To forward:

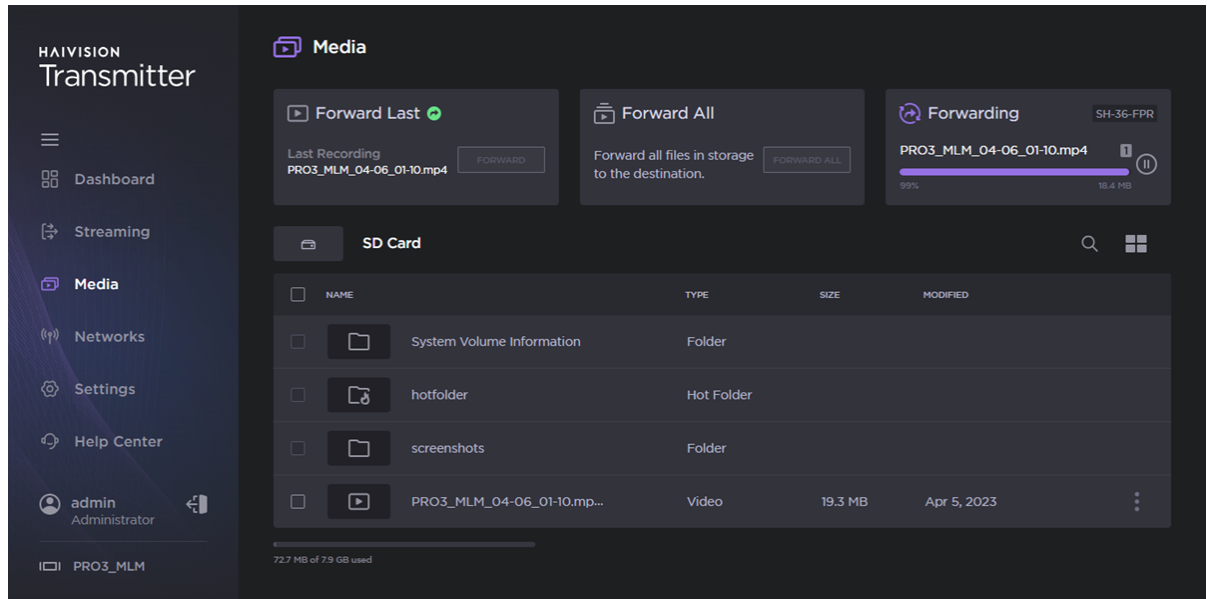
The Last Record	Specific Files	All Files
1. Tap . The forward starts.	1. Tap and . 2. Select or to open mass storage. 3. Tick the files that you want to forward. 4. Tap to start the forward The forward starts.	1. Click and . The forward starts.

Web Interface

1. In the sidebar, click **Media**.

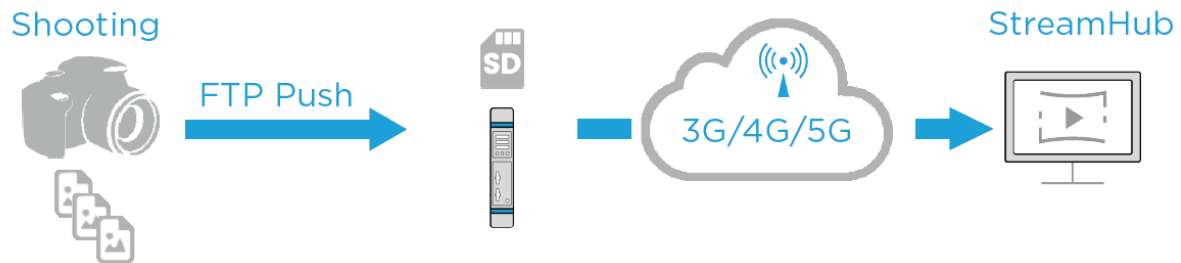


- A To forward the last recording, click the **Forward** button.
 - B To forward all files, click the **Forward All** button.
 - C To change the forward destination, click the  icon under Destination.
 - D To forward specific files, click the checkbox next to each file you wish to forward under the storage device and click the **Forward** button.
2. The  icon indicates forwarding is in progress. To stop forwarding, click the  icon next to the progress bar.



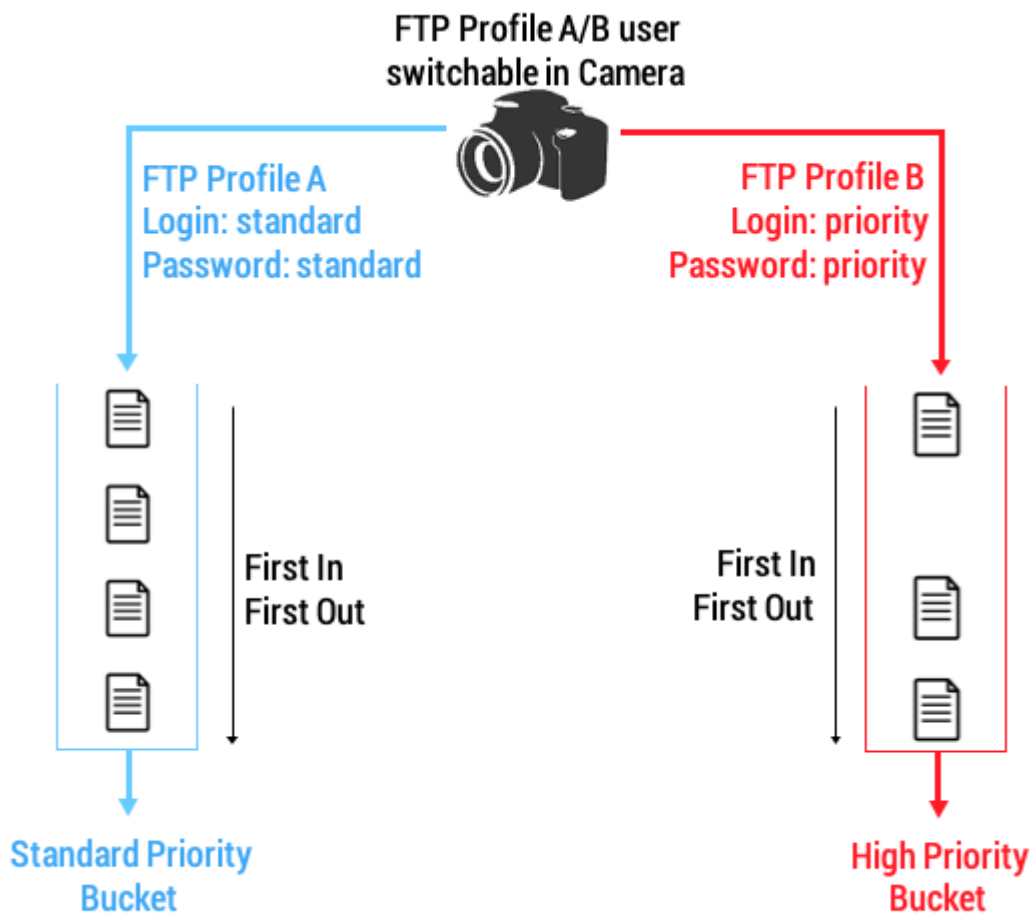
Transmitting Files via the Hot Folder

The Hot Folder function allows you to transmit files (e.g., photos) automatically over unmanaged networks wherever the action is taking place. This function uses an FTP push to transmit files following the FIFO method (First In, First Out).



Note

- You can manage the hot folder content on the SD card as you wish.
- Please refer to the procedure about deleting files in [Deleting Files from the SD Card](#).
- Files can be transmitted according to 2 priority levels (standard or priority), as defined on the device that transmits the files.



To enable or disable the hot folder function:

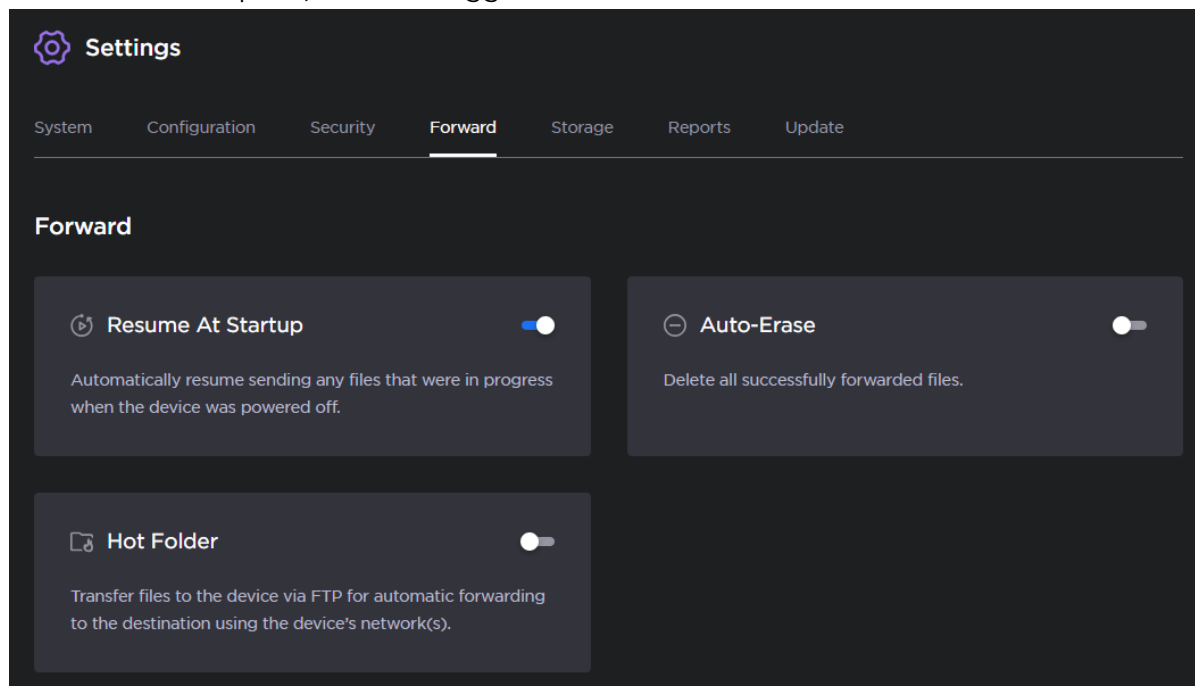
Unit Panel

1. From the **Home** menu, tap > > **Hot Folder**
2. Tap the toggle button to enable or disable the Hot Folder option.

Web Interface

1. In the sidebar, click **Settings**.
2. Click the **Forward** tab.

3. In the Hot Folder pane, click the toggle to enable or disable the **Hot Folder** function.



Files are automatically forwarded following the priority levels defined on the camera (standard or high priority). When the file transmission starts, the forward action can be seen on screen.

Using the Intercom

The Intercom function allows you to communicate with the Master Control Room, using a microphone or a headset connected to the unit. You can manage the Intercom function from the StreamHub interface.

1. Connect the headset or microphone to the unit.
2. From the StreamHub interface, start the Intercom session (please refer to the [StreamHub User Guide](#)).

The intercom session is indicated by the icon  on the front panel or web interface:

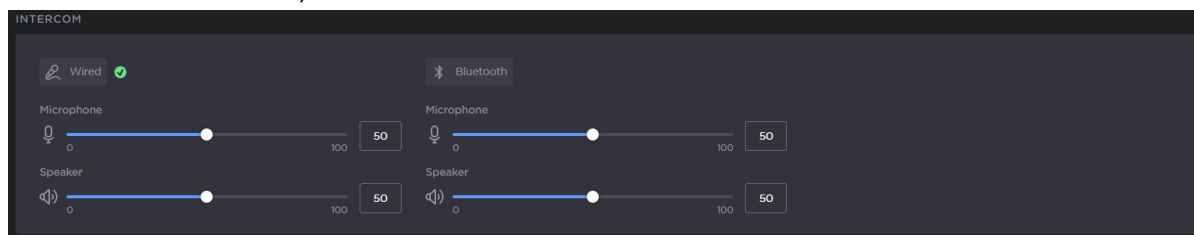
To adjust your microphone/headset volume levels from the Unit Panel or from the Web Interface, see the tabs below:

Unit Panel

1. From the **Home** menu, tap  > .
2. In the Intercom or the Bluetooth section, tap  or  to move the slider.

Web Interface

1. In the sidebar, click **Streaming > Input/Output**.
2. Click and drag the **Microphone** and **Speaker** sliders to adjust the microphone and headset volumes for wired and/or Bluetooth intercoms.

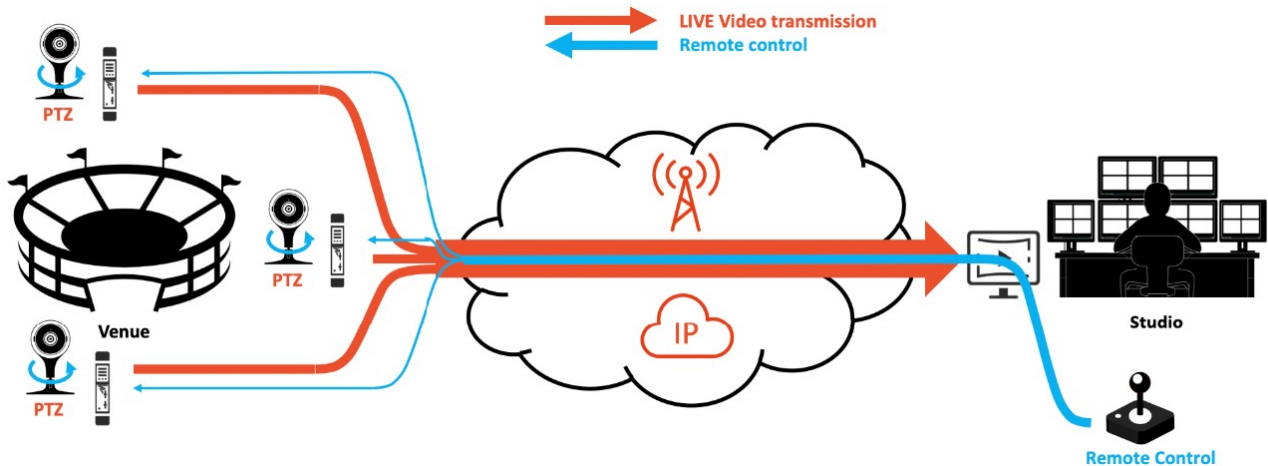


3. Click the **Apply** button.

Configuring a Data Bridge

The data bridge feature allows you to establish an IP tunnel to enable the communication and control of cameras, shading or tally.

When configured in Data Bridge mode, the unit can be used as a Data Bridge that provides access to the Internet from the field, or access to devices connected to the transmitter LAN from the studio (e.g., remote control of the camera).



In this configuration, Live operation is still allowed, but Record and Forward operations are no longer available. Up to 10 client devices can connect simultaneously to the unit's local network. The Ethernet interface shall be configured in Gateway mode, see [Configuring an Ethernet Interface](#).

To configure a unit as a Data Bridge, you must select the server that should be used (Destination Profile), and then enable Data Bridge mode. The selected server automatically allocates a license token to each Data Bridge that you enable.

To enable or disable the data bridge from the Unit Panel or from the Web Interface, see the tabs below:

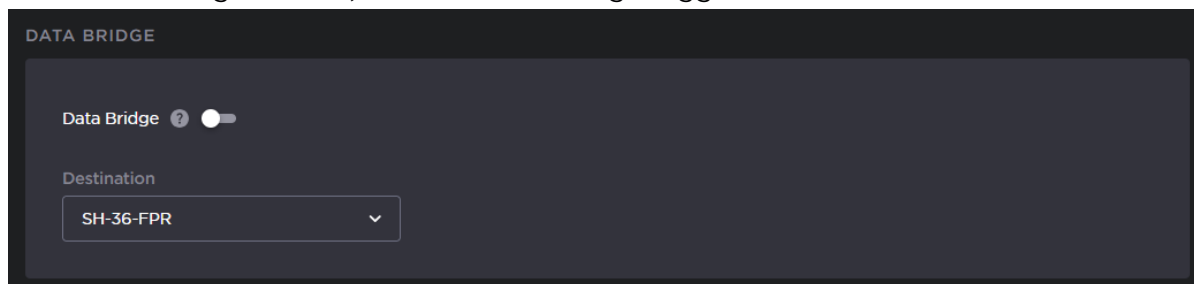
Unit Panel

1. From the **Home** menu, tap .
2. Tap the **Destination** field. A green dot (●) indicates the currently selected profile.
3. Tap  to scroll down the list of Destination Profiles.
4. Select a Destination Profile.
5. Tap the toggle button to enable or disable the option.

Web Interface

1. In the sidebar, click **Settings > System**.

-
2. In the Data Bridge section, click the Data Bridge toggle to enable or disable it.



-
-
3. Select the **Destination** from the dropdown list.
4. Click the **Apply** button.

Locking a Field Unit from Manager Interface

You can lock/unlock a field unit from the Manager interface. Please refer to the [Manager User Guide](#) for the procedure to follow.

After the field unit is locked, you cannot:

- Add/delete/modify Destination profiles
- Add/delete/modify Live profiles
- Add/delete/modify Record profiles
- Add/delete/modify BGAN profiles
- Change/select a new Destination profile
- Import/export a configuration in the unit
- Restore the factory settings
- Upgrade the Firmware



Note

The unit remains locked if:

- The connection to the Manager is lost
- The unit is rebooted
- The unit is powered off/on

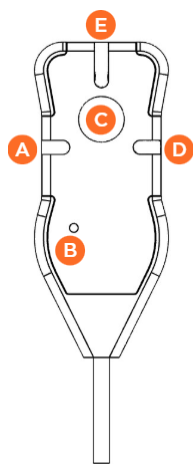
Using the Remote Control

Connect the remote control to the unit via the USB cable.



Note

When the remote control is connected, the Power indicator switches on and the other indicators blink for 3 seconds.



A	Live	Flashing Blue	The Live operation is starting.
		Fixed Blue	The Live is in progress.
		Off	No Live action is running.
B	Power	Fixed Green	The remote control is connected to the unit.
		Off	The remote control is not connected to the unit.
C	Live Button	Short press	When no action is running, starts a Live.
		Long press	When no action is running, starts a Record. When an action is running, stops all actions.
D	Record	Flashing Red	The Record operation is starting.
		Fixed Red	The Record is in progress.
		Off	No Record action is running.
E	Tally Light	Fixed Red	The Unit is ON Air.
		Off	The Unit is not ON Air.

Servicing

Topics Include

- [Getting the Unit Information](#)
- [Locking/Unlocking the Unit Panel](#)
- [Getting IMEI, IMSI, and ICCID Numbers](#)
- [Testing a Live using the Pattern Mode](#)
- [Changing the Web Interface Password](#)
- [Updating the Firmware](#)
- [Rebooting the Unit](#)
- [Restoring Factory Settings](#)
- [Exporting the Unit Configuration](#)
- [Importing the Unit Configuration](#)
- [Unlocking a SIM Card](#)
- [Downloading Files from the SD Card](#)
- [Deleting Files from the SD Card](#)
- [Formatting the SD Card](#)

Getting the Unit Information

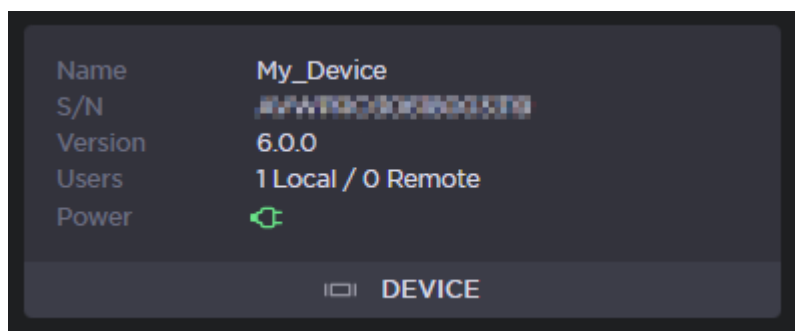
To get the unit information from the Unit Panel or from the Web Interface, see the tabs below.

Unit Panel

1. From the **Home** menu, tap  > 
2. When the Device Info screen appears, tap  to scroll down to view the unit information.

Web Interface

From the Dashboard, in the Device section, you can access to most of the unit's information. For more information, click **Settings > System**.



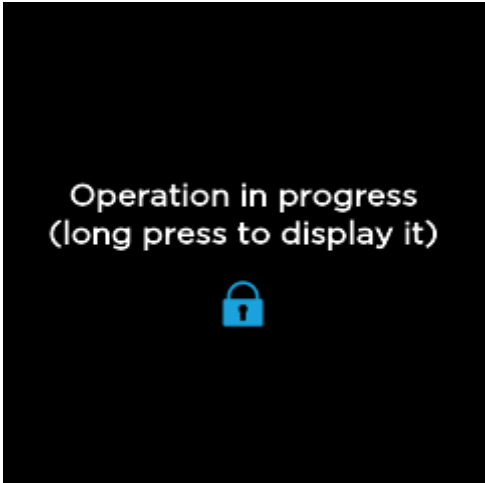
The following unit information appears:

- **Product Name**
- **Hardware ID** or **Serial Number**
- **Firmware Version**
- **Users:** Number of connected to the web interface
 - Local: Locally on the LAN (Ethernet or WiFi).
 - Remote: From a StreamHub (up to 4 users).
- **Power:** Indicates how the device is powered (plugged in or battery). If battery, also shows the current battery level .

Locking/Unlocking the Unit Panel

To lock or unlock the unit panel, press and hold the screen for more than 2 seconds.
The unit panel can be locked from the following screens:

- Home screen
- Live screens
- Recording screens
- Forwarding view
- Screensaver screen

Lock screen when an operation is in progress	Lock screen when no operation is running
	

Getting IMEI, IMSI, and ICCID Numbers

To view the various ID numbers related to the SIM card and modems from the Unit Panel or from the Web Interface, see the tabs below:

- **IMEI (International Mobile Equipment Identity) number** – A unique 15-digit number that identifies a cellular device within a mobile network. It identifies the modem embedded within the unit.
- **IMSI (International Mobile Subscriber Identity) number** – A unique 25-digit number that identifies a mobile subscriber. It identifies the SIM card inserted in the unit.
- **ICCID (Integrated Circuit Card Identifier) number** – A unique 19- to 22-digit number that identifies a SIM card. It identifies the chip of the SIM card inserted in the unit.



Note

For legal purposes, you may need to register the IMEI, IMSI, and/or ICCID numbers of the modems used.

Unit Panel

1. From the **Home** menu, tap .
2. Tap  to scroll the list of modems.
3. Tap and hold on the modem for which you require the IMEI, IMSI, and/or ICCID number.

The IMEI, IMSI, and ICCID numbers are displayed.

Web Interface

1. In the sidebar, click **Networks > Cellular**.
2. Click  > **Edit** on the desired SIM line.

The modem's IMEI, IMSI and ICCID numbers are shown:

 Edit SIM

SIM

IMEI

358088081602099

IMSI

454351000058712

ICCID

89852350119100073313

APN

Pre-Defined APN

Name

Webbing Global

APN

wbdata

Username

Enter username

Password

Enter password

OPERATOR ⓘ

Selection Mode

Auto

CANCEL

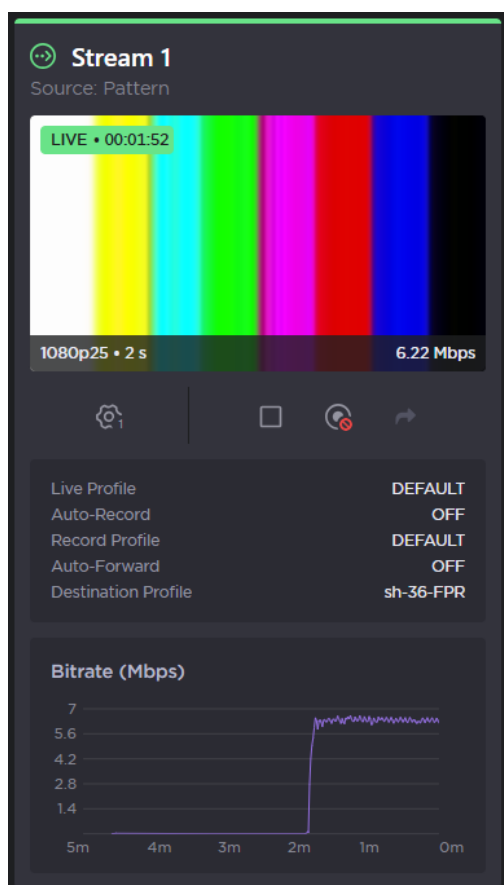
SAVE

Testing a Live using the Pattern Mode

After setting a Destination Profile, you can configure a Live encoding using a pattern to test communication between the unit and the destination receiver.

1. From the web interface, in the sidebar click **Streaming > Input/Output**.
2. In the Pattern dropdown, select a pattern: color circles, color bars, black.
3. Select the resolution in the Pattern Standard dropdown.
4. Click the **Apply** button.
5. Click the **Streams** tab and click the  icon.
6. Edit the stream by selecting **Pattern** in the Video Source dropdown.
7. Click the **Save** button.
8. Start the live by clicking the  icon.

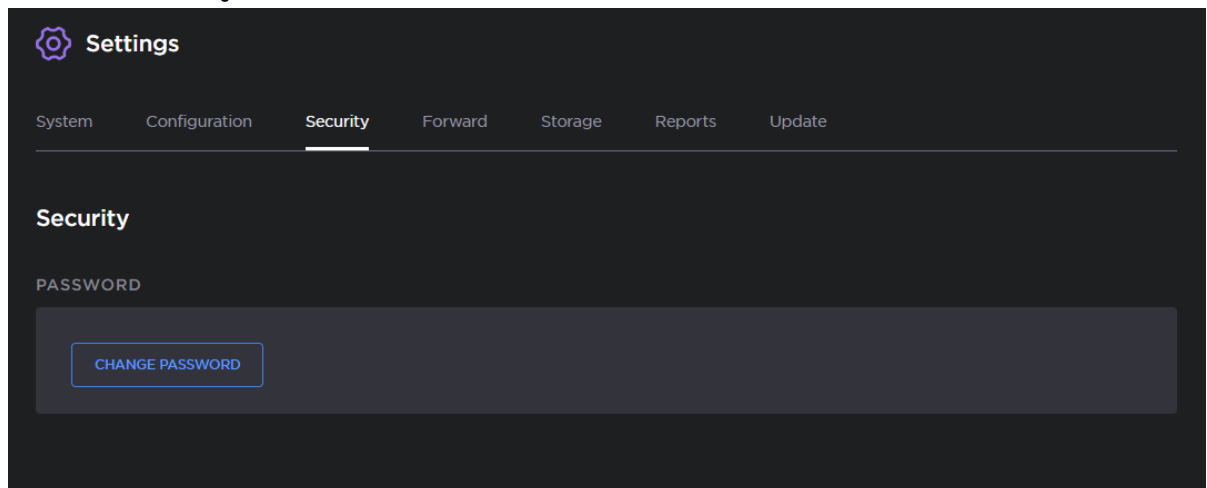
The live starts and the pattern appears.



Changing the Web Interface Password

To change the web interface password:

1. In the sidebar, click **Settings**.
2. Click the **Security** tab.



3. Click the **Change Password** button.

A screenshot of a 'Change Password' dialog box. It has a dark background with a shield icon and a close 'X' button in the top right. The dialog contains three input fields: 'Current Password*' (empty), 'New Password*' (with placeholder text 'Minimum 8 characters including 3 character types'), and 'Confirm Password*' (with placeholder text 'Confirm Password'). At the bottom right, there are two buttons: a blue-outlined 'CANCEL' button and a solid blue 'CHANGE' button.

4. Enter the current password and the new password in the appropriate fields.
5. Click the **Change** button.

Updating the Firmware



Note

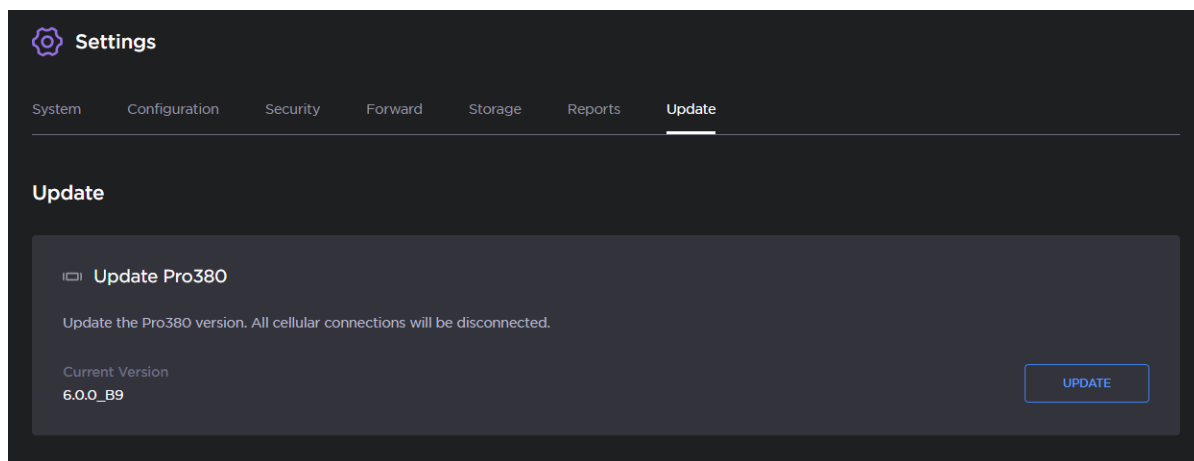
- Ensure that the battery is properly charged before starting to update.
- The firmware can be updated from Hub 360 or Manager (v3.3.0 and higher).

Unit Panel

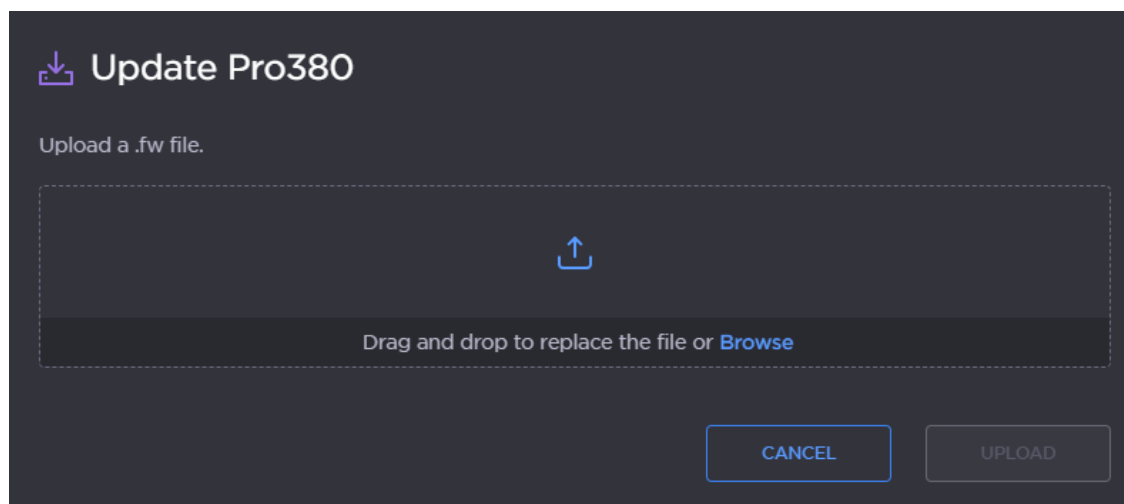
1. Download the firmware file from the [Haivision Support Portal](#).
2. Copy the `.fw` firmware file that you downloaded to an SD card or USB flash drive.
3. Insert the SD card or connect the USB flash drive to the transmitter.
4. From the **Home** menu, tap > > **Firmware**.
5. A message displays information about the firmware version and asks for confirmation. Tap **Yes** and **Confirm**.

Web Interface

1. Download the firmware file from the [Haivision Support Portal](#).
2. In the sidebar, click **Settings**.
3. Click the **Update** tab.



4. Click the **Update** button.
5. Drag and drop or click the **Browse** button to select the `.fw` software file that you saved.



6. Click the **Upload** button.
7. Follow the instructions on the screen.

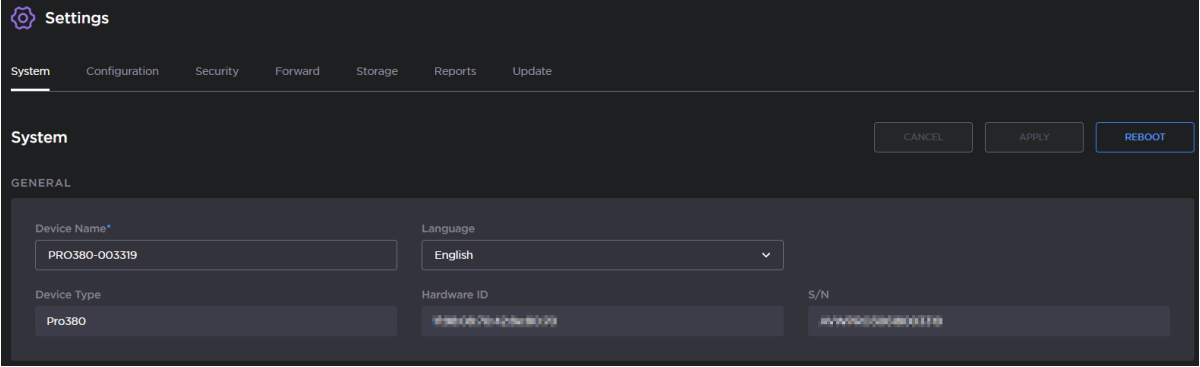
**Important**

The update may take several minutes, depending on whether it is a major update or not. During the update, do not perform any actions on the system. At the end of the process, a message appears to reboot or switch off the unit, depending on the firmware version uploaded.

Rebooting the Unit

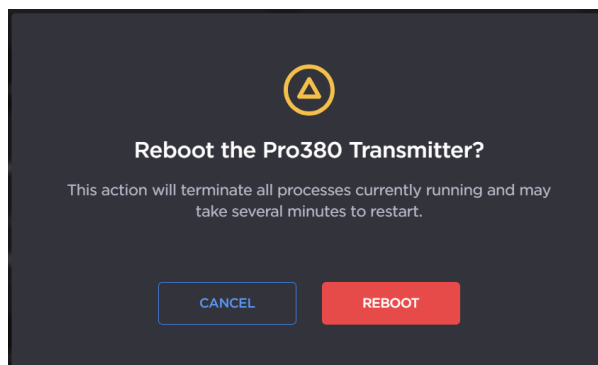
You can reboot the unit from the web interface or remotely via Hub 360 (see the [Hub 360 documentation](#) for details).

1. In the sidebar, click **Settings**.
2. Click the **System** tab.



The screenshot shows the 'Settings' page with the 'System' tab selected. The 'System' section includes a 'REBOOT' button. Below it, the 'GENERAL' section displays fields for 'Device Name' (PRO380-003319), 'Language' (English), 'Device Type' (Pro380), 'Hardware ID' (PRO380-003319), and 'S/N' (PRO380-003319).

3. Click the **Reboot** button.
4. When prompted, click the **Reboot** button to confirm.



Restoring Factory Settings

To restore the factory settings from the Unit Panel, or from the Web Interface, see the sections below.



Note

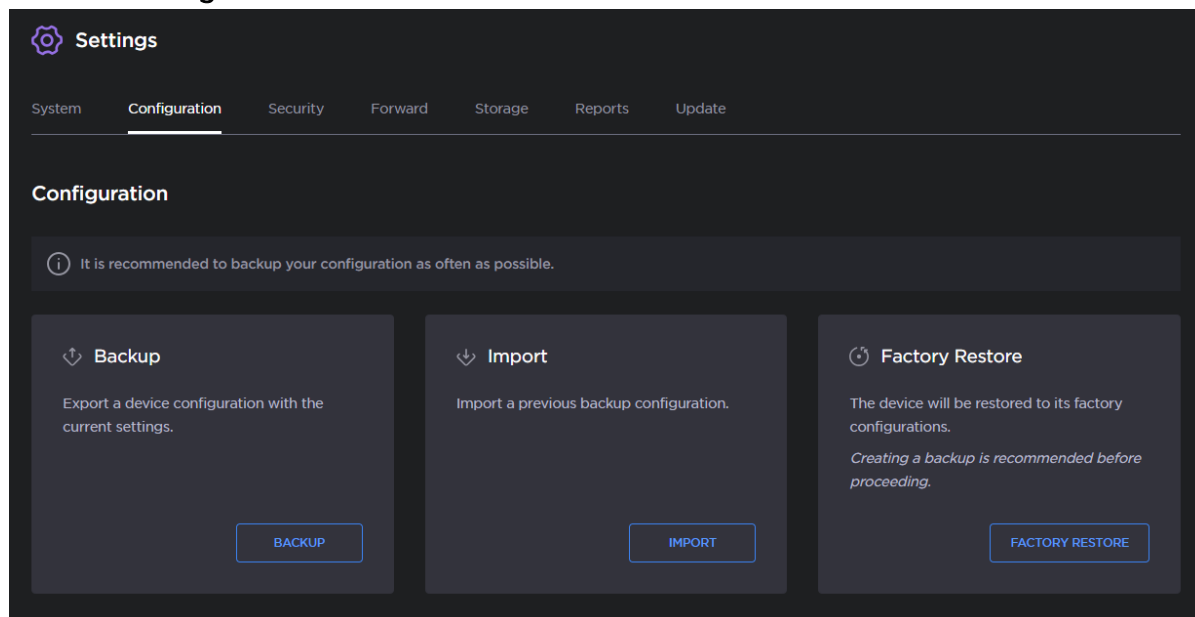
We recommend creating a backup before proceeding. See [Exporting the Unit Configuration](#) for more details.

Unit Panel

1. From the **Home** menu, tap > > **Configuration** > **Factory settings**.
2. Tap **Yes** to confirm restoration.

Web Interface

1. In the sidebar, click **Settings**.
2. Click the **Configuration** tab.

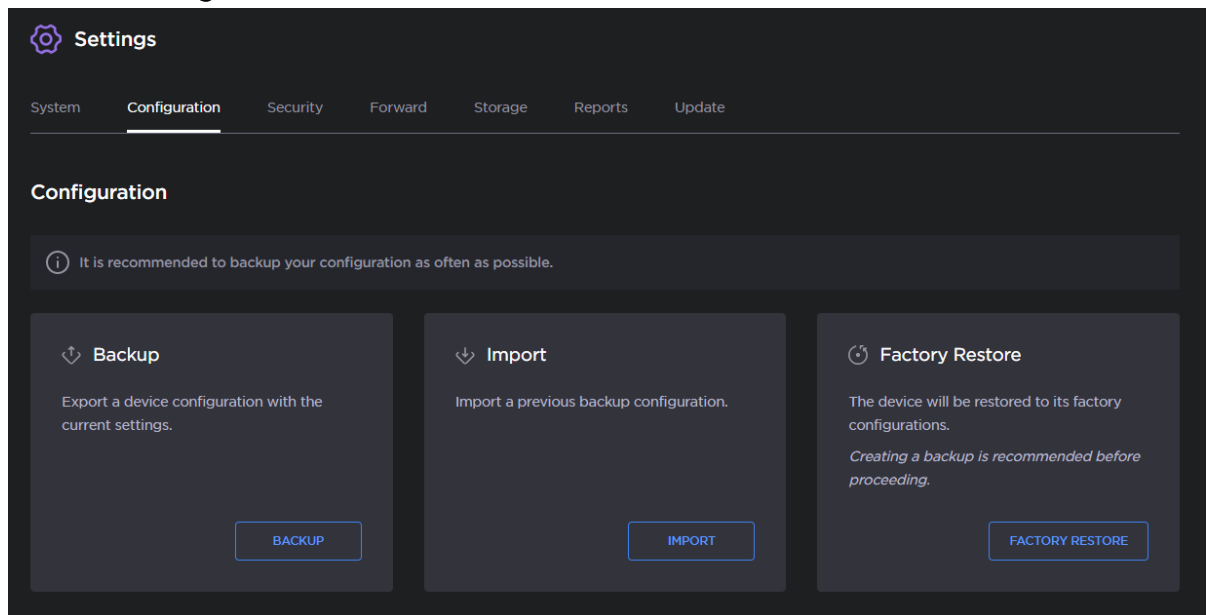


3. Click the **Factory Restore** button.
4. Click the **Factory Restore** button to confirm.

Exporting the Unit Configuration

To export the unit configuration from the Web Interface:

1. In the sidebar, click **Settings**.
2. Click the **Configuration** tab.



3. Click the **Backup** button.

An `.awj` file is exported and downloaded by your browser. This file can be easily imported later after the factory settings have been restored.

Importing the Unit Configuration

You can import the unit configuration via the unit panel, web interface, or a USB flash drive.



Note

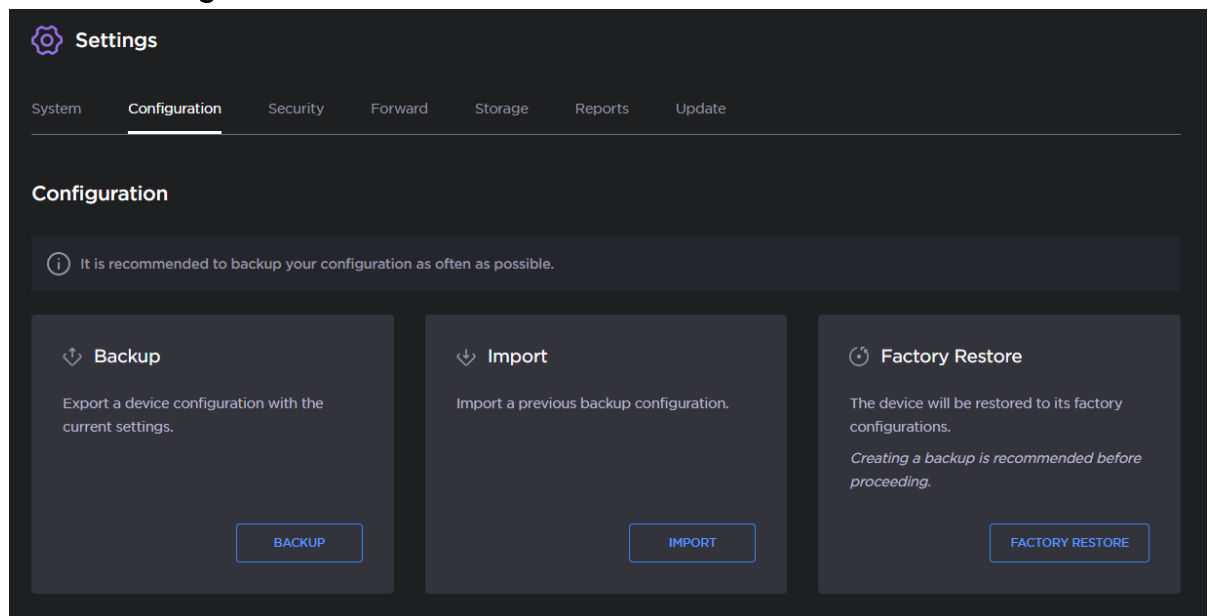
You can also import the configuration from Manager (v3.3.0 and higher).

Unit Panel

1. From the **Home** menu, tap > > **Configuration** > **Import from file**.
2. Select the `.awj` file to be imported from the SD card or the USB flash drive.

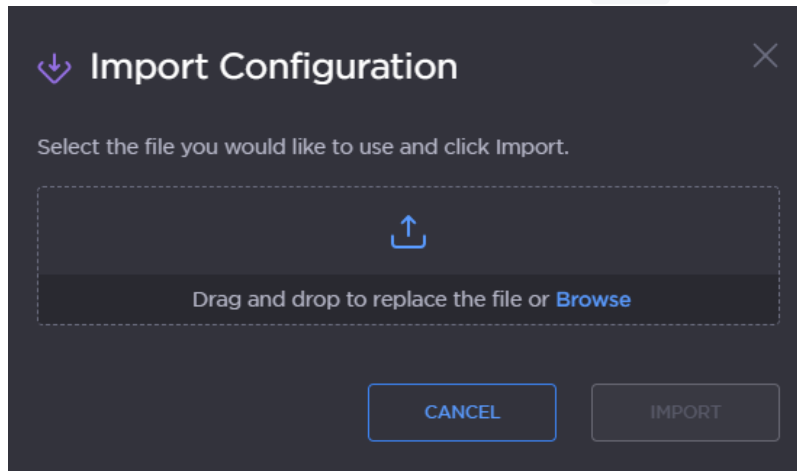
Web Interface

1. In the sidebar, click **Settings**.
2. Click the **Configuration** tab.



3. Click the **Import** button.

4. Drag and drop or click **Browse** to select the `.awj` file to be imported.



5. Click the **Import** button.

USB Flash Drive

The unit supports automatic reconfiguration at startup or after detecting the insertion of a USB flash drive containing specific configuration files in its root directory.

- **For an overall configuration:** the file must be named `autoconfig.awj`.
- **For a configuration related to network only:** the file must be named `networkconfig.awj` or `networkconfig.conf`. If both are present, only `networkconfig.conf` will be used.
- **For a Destination Profile auto-configuration:** the file must be named `destinationconfig.awj`.

Note

If `autoconfig.awj`, `networkconfig.xxx`, and `destinationconfig.awj` are present, only `autoconfig.awj` will be used.

The reconfiguration is rejected when:

- the file format is not valid,
- the file is not applicable for the product (e.g., Air configuration file applied on Pro3), or
- the unit is in operation (Live, Forward, Record).

Note

- When the unit is reconfigured, the Activity LED blinks blue 3 times.
- When reconfiguration is rejected, the Activity LED blinks red 3 times.

Unlocking a SIM Card

You can unlock a SIM card from the Unit Panel only.

1. From the **Home** menu, tap .
2. Tap  or  to select the concerned Modem.
3. Tap the modem line indicating "Need PIN".
4. Tap . The screen displays the number of attempts left to enter the PIN code to unlock the SIM card.
5. Tap **OK** to activate the keyboard.
6. Enter the PIN code and Tap  to confirm.



Note

If you exceed the number of attempts allowed, a message is displayed. The SIM card needs to be unlocked by entering the PUK code using another device, such as a phone or a tablet.

Downloading Files from the SD Card



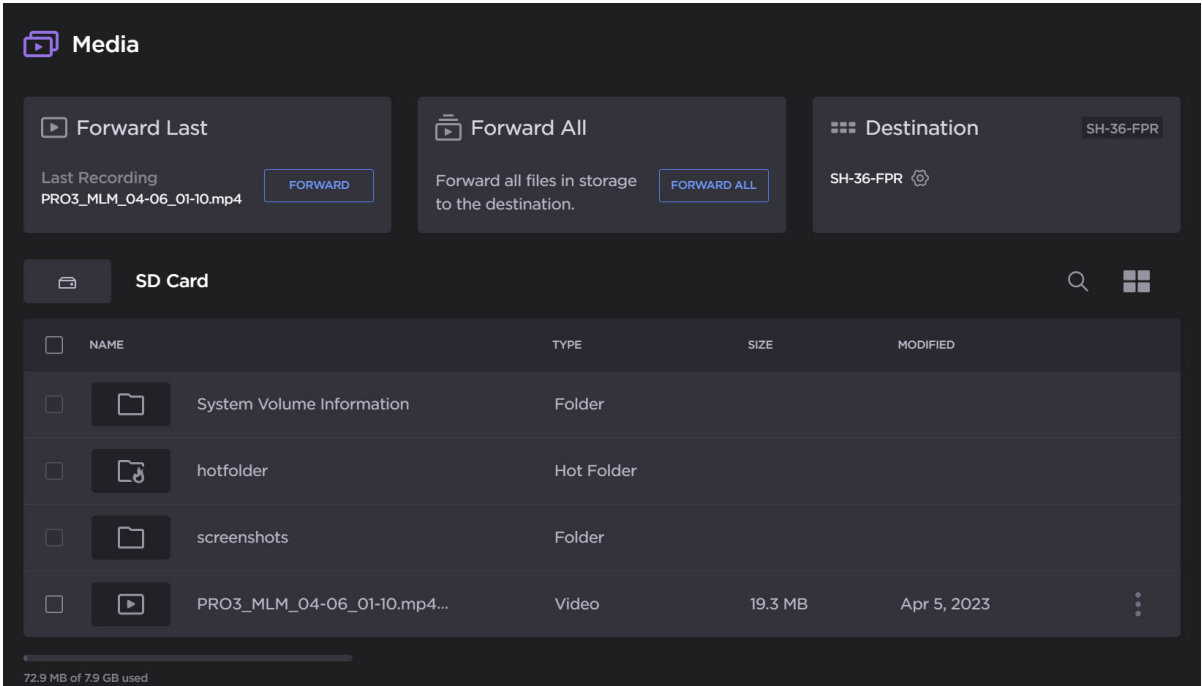
Important

Ensure that the SD card is not locked.

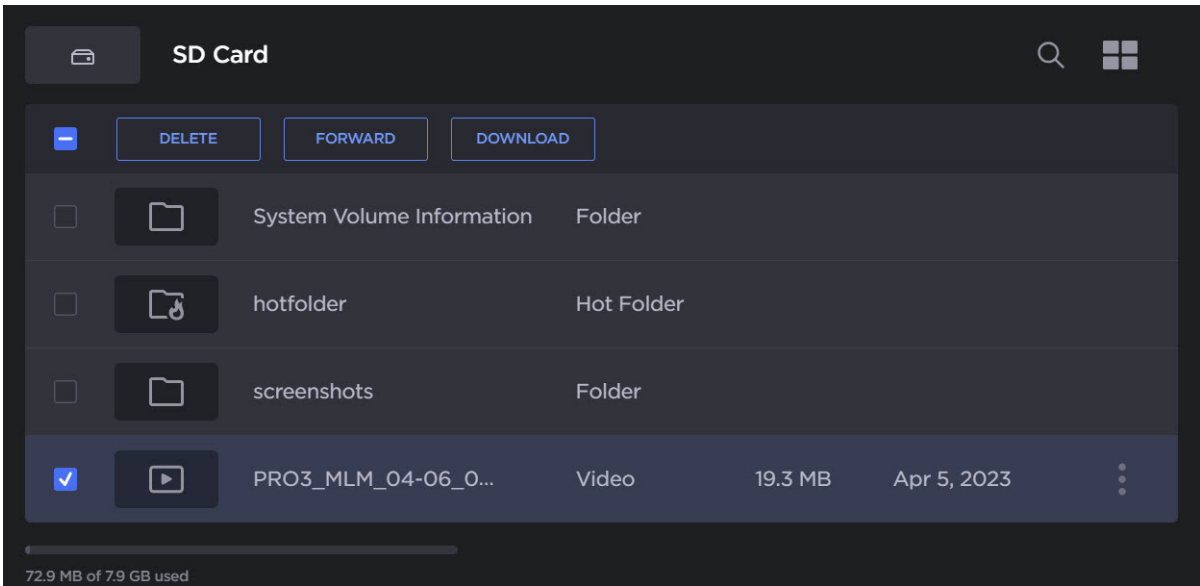
You can download files from the SD card via either the web interface or an FTP client.

Web Interface

- 1. In the sidebar, click **Media**. The SD card files appear:



- 2. Select the checkboxes next to the files you wish to download.



- 3. Click the **Download** button.

Your web browser downloads the selected files.

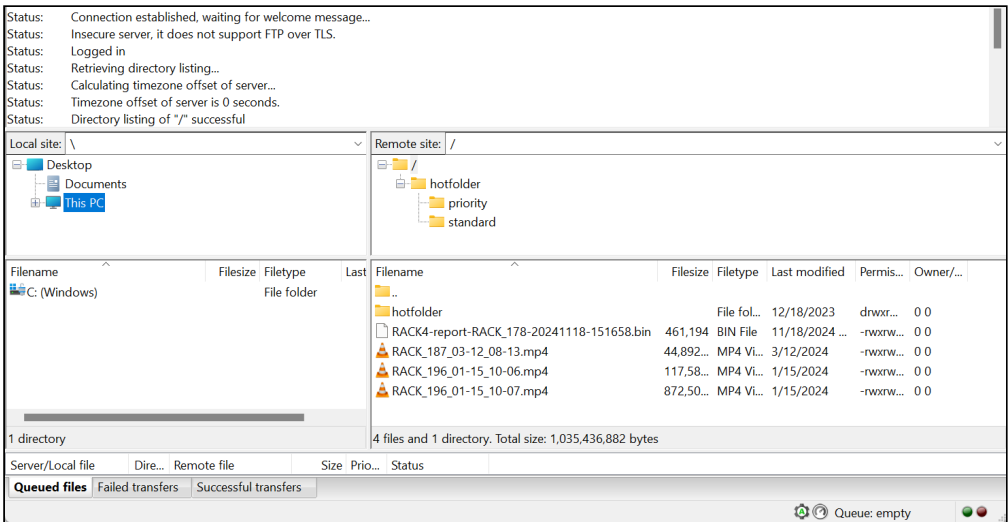
FTP Client

SD card files can be downloaded from an FTP client with the following credentials:

- Username: `sdcard`
- Password: `sdcard`

**Note**

You may also upload files to the SD card via an FTP client.



Deleting Files from the SD Card



Important

Ensure that the SD card is not locked.

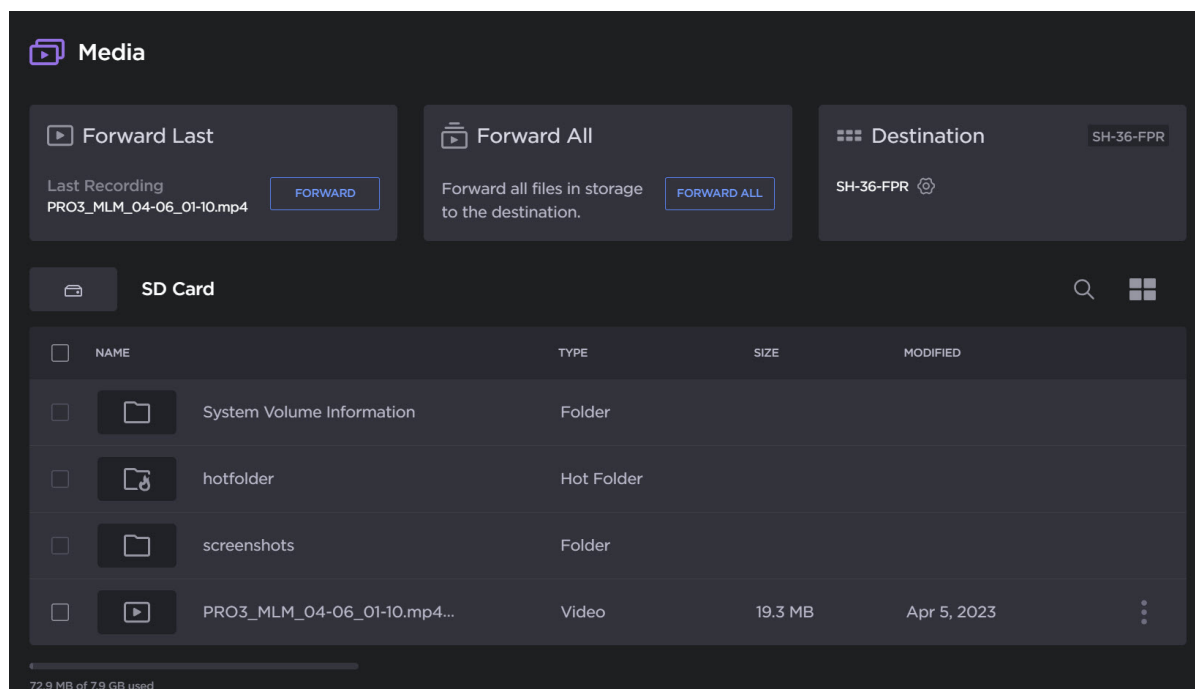
You can delete files from the SD card via either the unit panel, the web interface, or an FTP client.

Unit Panel

1. From the **Home** menu, tap > > **Delete**.
2. Tap the files you want to delete and tap .
3. Tap **Yes** to confirm.

Web Interface

1. Select **Media** from the sidebar, the SD Card files will be listed on the Media page, as in the following example:



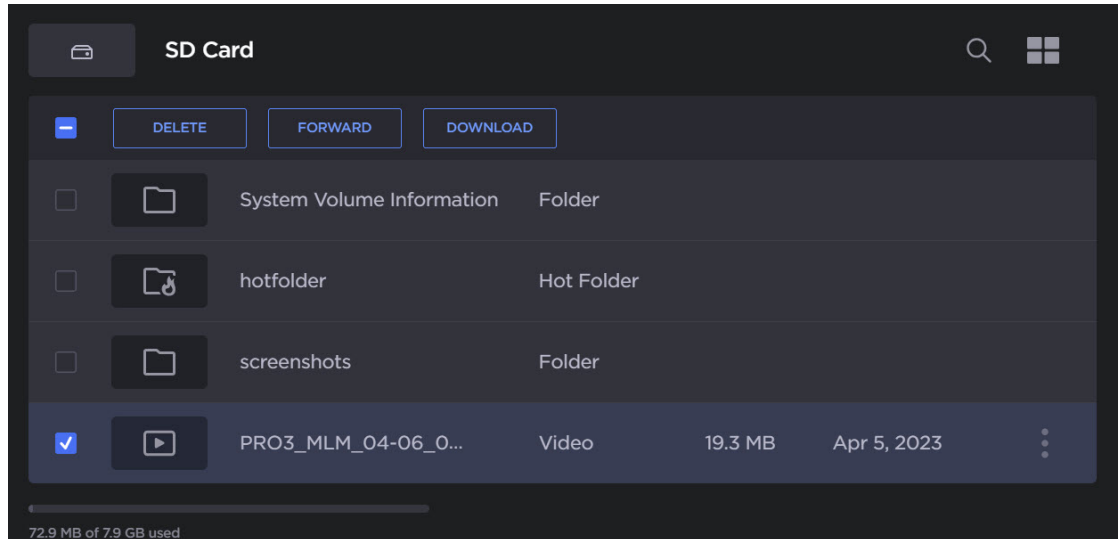
Note

If the Hot Folder function is enabled, the icon looks like .

2. You can:

Select one or several files to be deleted.

- a. Click the checkboxes of the files to be deleted



- b. Click **Delete**.

Select all files.

- a. Click the checkbox in the table header to select all.
- b. Click **Delete**.

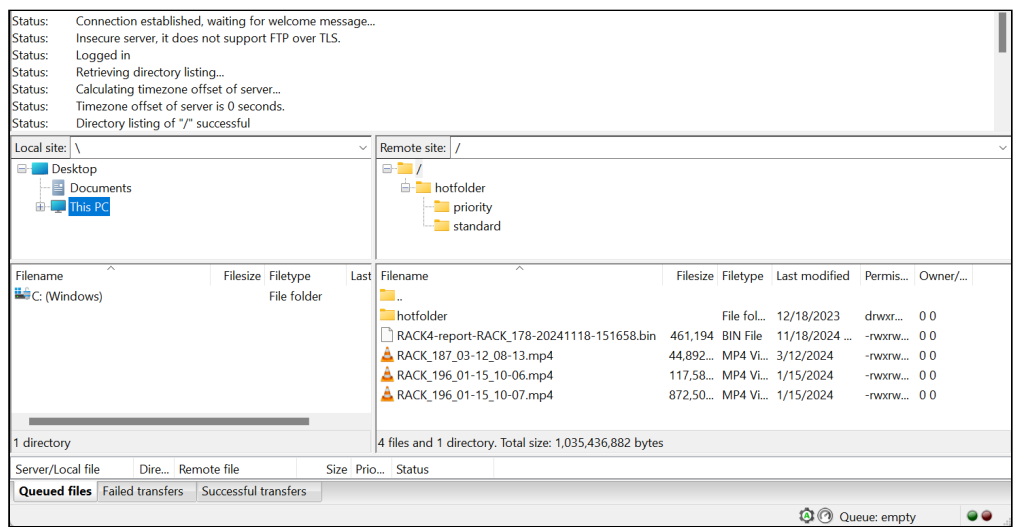
Select files stored in the Hot Folder:

- a. Click **Hot Folder**.
- b. Enter priority or standard folder to select files to be deleted.
- c. Click **Delete**.

FTP Client

SD card files can be deleted from an FTP client with the following credentials:

- Username: `sdcard`
- Password: `sdcard`



Formatting the SD Card

To format the SD card from the unit panel or the web interface, see the tabs below:

Unit Panel

1. From the **Home** menu, tap  >  > **Format**.
2. In the Format SD menu, tap **FAT32** or **exFAT**.



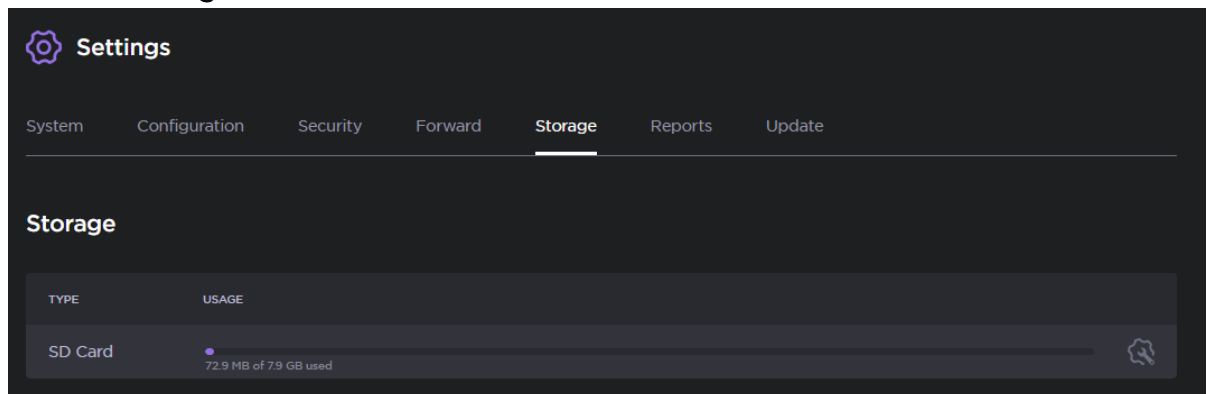
Note

FAT32 format is older and limits the size of files to 4GB.

3. Tap **Yes** to confirm.
4. Tap **OK** to complete the operation.

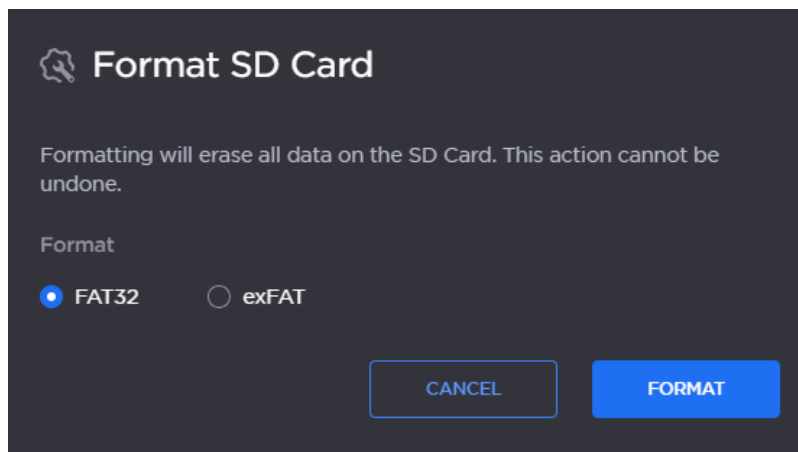
Web Interface

1. In the sidebar, click **Settings**.
2. Click the **Storage** tab.



3. Click the  icon next to the SD card you wish to format.

4. Select either **FAT32** or **exFAT**.



5. Click the **Format** button.

Troubleshooting

Topics Include

- [Getting a Report File](#)
- [Downloading an Existing Report](#)
- [Alarm Messages](#)

Getting a Report File

The Haivision support team may ask that you email a Report File to help them in investigating any unexpected behaviors. To generate a report from the Unit Panel or from the Web Interface, see the tabs below:

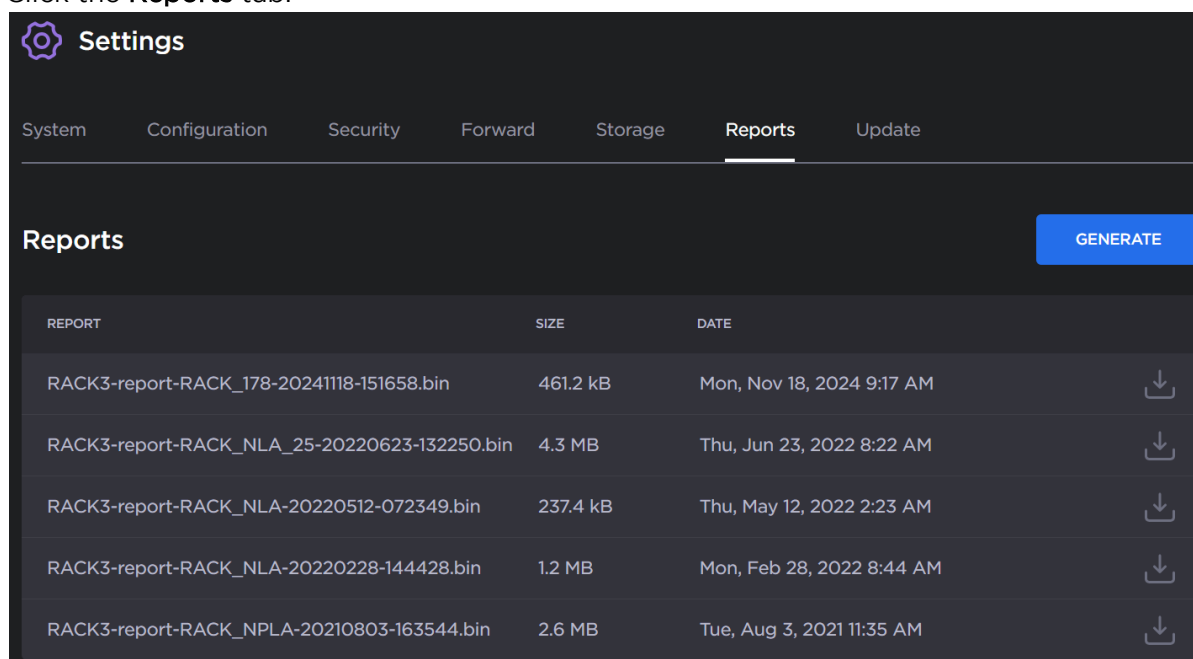
Unit Panel

1. From the **Home** menu, tap  >  > **Report**.

A report is generated. It is accessible from the Web Interface or from the SD card (if present). See the Web Interface tab to download the file.

Web Interface

1. In the sidebar, click **Settings**.
2. Click the **Reports** tab.



3. Click the **Generate** button to create a new report
4. After the report is generated, click the  icon next to the new report to download it.
5. The report file (**.bin**) is downloaded by your browser.
6. Attach the **.bin** file to an email in which you explain the issue you are facing and send it to our support team via the [Haivision Support Portal](#).

Downloading an Existing Report

To download an existing report from the web interface:

1. In the sidebar, click **Settings**.
2. Click the **Reports** tab. The Reports list appears:

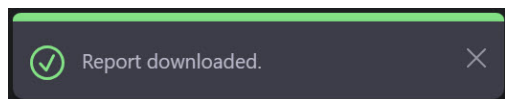
 **Note**
Only the last 5 reports are listed.

System Configuration Security Forward Storage **Reports** Update

Reports GENERATE

REPORT	SIZE	DATE	
PRO3x0-report-PRO_MNA-20201113-015810.bin	2.2 MB	Thu, Nov 12, 2020 8:58 PM	
PRO3x0-report-PRO_MNA-20200629-144540.bin	5 MB	Mon, Jun 29, 2020 10:45 AM	
PRO3x0-report-PRO_MNA-20200614-160251.bin	4.5 MB	Sun, Jun 14, 2020 12:02 PM	

3. Click the  icon next to the report you wish to download.
4. A notification appears confirming the report (.bin file) has been downloaded to your browser.



5. Attach the `.bin` file to an email in which you explain the issue you are facing and send it to our support team via the [Haivision Support Portal](#).

Alarm Messages

Message	Solutions
Authentication failed	- Check username and password entered for the Destination profile used. - Ensure you use a StreamHub for which AES is not activated.
Bad video synchronization	- Check that the video cable(s) are properly connected to the camera and to the unit. - On the Web Interface, check that the video input standard is properly identified.
Connection lost	The unit has been disconnected from the Internet Network. Check your internet connection.
Connection to input closed by server	The unit has been disconnected from the server by the user of the StreamHub.
Connection to input not authorized for this product	The unit tries to connect to a receiver's channel not available for this type of product. Edit the profile to connect to the receiver in the settings of the unit: select another channel (see Adding a Destination Profile).
Connection to receiver failed	Edit the profile to connect to the receiver in the settings of the unit: select another channel or select the Auto-connect option (see Adding a Destination Profile).
Connection to server failed (invalid license / expired license / no license found)	- The license applied on the server is invalid, expired or there is no license applied on the server. - You cannot connect the unit to this server until a valid license is applied on the server.
Connection to server failed (max devices reached)	There are no more available channels on the server to connect a unit. Select another receiver (see Adding a Destination Profile).
Error: check server profile	The server profile is not configured properly (see Adding a Destination Profile).
Failed to connect to the server	- The bandwidth is not sufficient to connect to the server. - Wrong IP address or port set for the StreamHub. Check that destination profile settings are properly configured.
Missing audio signal on HDMI	If the source should embed audio signals, please check the camera settings.
Missing signal on SDI/HDMI	Check that the source set in the video settings corresponds to the actual video input.
No interface connected	- Check that the network interfaces of the unit are enabled. - Check that the SIM card is identified and that the modem is properly connected to network. - Check the Ethernet cable.
Read-only SD card	Unlock the SD card inserted into the unit.
Receiver not available	Call the MCR. Make sure that the StreamHub is turned on and reachable.
Receiver not defined	Please see Adding a Destination Profile .

Specifications

Topics Include

- [Video](#)
- [Audio](#)
- [Video Return](#)
- [Networks](#)
- [Interfaces](#)
- [Hardware Specifications](#)
- [GNSS Receiver](#)
- [Radiated Output Power](#)

Video

		H.265/HEVC	H.264/AVC
Standards	HD	1920x1080p 25/29.97/30/50/59.94/60 fps 1920x1080i 50/59.94/60 fps 1280x720p 50/59.94/60 fps	
	SD	720x576i (PAL) 720x480i (NTSC)	
Compression	Codec	H.265/HEVC	H.264/AVC
	Profile	Main	High
	Level	Up to 4.1	Up to 4.2
	Chroma format	4:2:0	4:2:0
	Bit depth	8-bit	8-bit
Bitrate mode		VBR (Live) CBR (Live, Record)	
Live Bitrate (static resolution as source)	1080p 50/59.94/60	600kbps - 20Mbps	3Mbps - 20Mbps
	1080p 25/29.97/30	600kbps - 20Mbps	1.8Mbps - 20Mbps
	1080i 50/59.94/60	300kbps - 20Mbps	1.8Mbps - 20Mbps
	720p 50/59.94/60	300kbps - 20Mbps	1.4Mbps - 20Mbps
	SD (PAL or NTSC)	200kbps - 20Mbps	0.5Mbps - 20Mbps
Live Bitrate (dynamic resolution)	1080p 50/59.94/60	-	200kbps - 20Mbps
	1080p 25/29.97/30	-	
	1080i 50/59.94/60	-	
	720p 50/59.94/60	-	
	SD (PAL or NTSC)	-	
Live Bitrate (downscaled resolution)	1920x1080p 50/59.94/60	-	3Mbps - 20Mbps
	1920x1080p 25/29.97/30	-	1.8Mbps - 20Mbps
	1280x720p	-	1.4Mbps - 20Mbps
	854x480p	-	0.5Mbps - 20Mbps
	640x340p	-	0.4Mbps - 20Mbps
	426x240p	-	0.3Mbps - 20Mbps
Record File Format	MP4 Transport Stream		
Record Bitrate	2Mbps - 20Mbps		
Input/Output	1x 3G-SDI input 1x 3G-SDI output: video source loop through (SDI input/HDMI input/Pattern) 1x HDMI 1.4 input: HD only 1x HDMI 1.4 output: Video Return		

Audio

Channels	Up to 4 channels (SDI input) Up to 2 channels (HDMI input)
Codec	AAC-LC
Bitrate	32 kbps - 256 kbps per channel
Mode	Dual Mono, Dual Stereo (SDI only)
Input/Output	1x 3G-SDI input embedded audio 1x 3G-SDI output (loop through) embedded audio 1x HDMI 1.4 input

Video Return

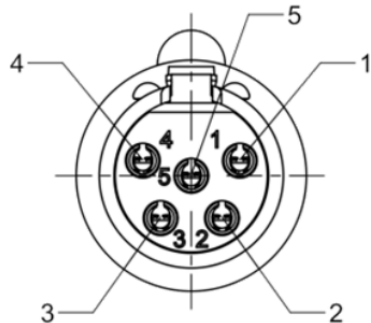
Video	Codec	H.264/AVC 4:2:0 8 bit
	Resolution	720p 50/60 1080p 25/30 1080p 50/60
	Bitrate Mode	CBR
	Bitrate	200kbps to 6Mbps
Audio	Codec	AAC-LC
	Mode	Mono and Stereo
	Bitrate	32Kbps (for Mono) 64Kbps (for Stereo)

Networks

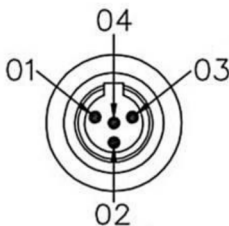
3G, 4G, and 5G (Pro360-5G model)	6 modems with embedded high-gain custom antennas Worldwide compliant 5G SA and NSA modes supported 5G sub 6GHz supported Supported bands: • 5G: n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n48, n66, n71, n77, n78, n79 • 4G: B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B34, B38, B39, B40, B41, B42, B48, B66, B71 • 3G: B1, B2, B3, B4, B5, B6, B8, B9, B19
3G and 4G (Pro340 and Pro380 models)	Modems with embedded high custom antennas • 4 modems for Pro340 • 8 modems for Pro380 Worldwide compliant Supported bands: • 4G: B1, B2, B4, B5, B7, B8, B12, B13, B17, B18, B19, B20, B21, B25, B26, B28, B30, B38, B39, B40, B41, B66 • 3G: B1, B2, B3, B4, B5, B6, B8, B19
Ethernet	2x User-configurable static or DHCP IP address assignments
Wi-Fi	Configurable in Access Point Mode or Client Mode Maximum simultaneous connections to Access Point: 10 Frequency Band: 2.4 GHz or 5 GHz Dynamic list of channels (Access Point Mode): • 1 to 11 for 2.4 GHz • 36, 40, 44 and 48 for 5 GHz
Latency (end-to-end)	User configurable: • Broadcast over SST mode • CBR: 500ms to 10s • VBR: 800ms to 10s • Broadcast over SRT mode (Ethernet only)

Interfaces

Audio/Video

3G-SDI Input 3G-SDI Output	Connector type: BNC connector Impedance: 75ff Complies with SMPTE 259M, SMPTE 292M, and SMPTE 424M level A and level B-DS (limited to one SDI stream for level B-DS) Supported Embedded Audio at 48kHz	
HDMI Input HDMI Output	Connector type: Type A Complies with HDMI 1.4 Fully shielded HDMI cable is mandatory	
Analog Audio Input/Output	Connector type: Mini-XLR (Male, 5 pins) Mates with: - Rean/Neutrik RT5FCT-B (Female, 5 pins) - Switchcraft Mini-XLR TA5F Series (Female, 5 pins) Pins (Mating plugs): - Common GND - Balanced Input Hot (+) - Balanced Input Cold (-) - Microphone Input - Headphone/Line Output Balanced channel input impedance: 59.6kff Balanced channel input level (nominal): 4dBu (1.23Vp) Balanced channel input level (0dB Full Scale): 18dBu (8.7Vp) Balanced channel input level (max): 19.4dBu (10.2Vp) Headphone Dynamic Range (20kHz Filter): 101dB Headphone THD+N: -70dB max Headphone Load Impedance: 16ff or higher Headphone Output Power: 55.8mW max (16ff) Line full scale output voltage: 0.97V _{RMS} Line load impedance (typical): 10kff Microphone Bias: 2V Microphone Maximum Level : 0.5V _{RMS}	

Return IFB Channels

Intercom Headset	Connector type: Mini-XLR (Male, 4 pins) <i>(Signal complies with Apple and Samsung headsets)</i> Mates with: - Rean/Neutrik RT4FCT-B (Female, 4 pins) - Switchcraft Mini-XLR TA4F Series (Female, 4 pins) Pins (Mating plugs): - Common GND - Microphone input - Headphone left output - Headphone right output	
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	Headphone Dynamic Range (20-kHz Filter): 100 dB Headphone THD+N: -70 dB max Headphone Load Impedance: 16ff or higher Headphone Output Power: 2 x 55mW max (16ff) Headphone Full Scale output voltage: 0.65V _{RMS} Microphone Bias : 2.5V Microphone Maximum Level : 0.5V _{RMS}
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LAN/WAN

Ethernet	Two Ethernet ports 10/100/1000 Base-T RJ45 connector Green LED indicates link Orange LED indicated speed (on: 1000BT, off: 10/100BT)
Wi-Fi	Dual-band 2.4GHz and 5GHz 802.11 b/g/n/ac

Remote Antenna

Quad Antennas	2x4 MCX Connectors on Pro380 1x4 MCX Connector on Pro340
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Storage

SD Card	SD slot, class10 recommended (FAT32, exFAT)
USB	One USB 3.0 Type A connector

Power

DC Input	Input type: XLR 4-pin male connector Automatic under-voltage protection at 11.8 Volts Automatic over-voltage protection at 24 Volts
AC/DC Adapter	Manufacturer: EDAC POWER ELEC. Model: EA10951E-180 DC Output: 18V / 5A max AC Input: 100-240V-2.5A,50-60Hz
Camera	60W max delivered by Pro360-5G

Hardware Specifications



Note

- External battery must be PS2 (<100W) following to IEC 62368-1:2014 standard and the certification.
- Some external batteries (V-Mount or Gold Mount) can support a WiFi link for remote configuration or supervision. It is recommended to disable Wi-Fi on these batteries to avoid interfering with the equipment

	Pro340	Pro360-5G	Pro380
Power Supply	DC input 18V nominal, 5A Max External battery with V mount or Gold mount plates		
Power Consumption	70W max From 25 to 35W typical		
Weight	1.36kg	1.4kg	1.43kg
Dimensions (LxWxD)	22.2 x 8.4 x 12.5cm 8.7" x 3.3" x 4.9"	25.6 x 8.4 x 12.5cm 10.1" x 3.3" x 4.9"	24.5 x 8.4 x 12.5cm 9.6" x 3.3" x 4.9"
Operating temperature	-5°C to 45°C (-5°C to 35°C when unit in backpack) 23°F to 113°F (23°F to 95°F when unit in backpack) 0°C to 40°C for the DC adapter 32°F to 104°F for the DC adapter		
Storage temperature	-20°C to 80°C -4°F to 176°F		

GNSS Receiver

Frequency Range	1575.42 +/- 1.023 MHz
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Radiated Output Power

	Frequency Range	Maximal Radiated Power	
		Pro340/380	Pro360-5G
WiFi 2.4GHz	2400 - 2483.5 MHz	41.69 mW	79.4 mW
WiFi 5GHz ¹	5150 - 5250 MHz	-	77.6 mW
UMTS	1920 - 1980 MHz 880 - 915 MHz	104.47 mW 225.42 mW	124 mW 84 mW
LTE	1920 - 1980 MHz 1710 - 1785 MHz 2500 - 2570 MHz 880 - 915 MHz 832 - 862 MHz 703 - 748 MHz	119.12 mW 180.3 mW 197.7 mW - 121.06 mW 69.66 mW	148 mW 98 mW 200 mW 105 mW 182 mW 195 mW
UMTS (with external antennas)	1920 - 1980 MHz 880 - 915 MHz	123.18 mW 110.10 mW	
LTE (with external antennas)	1920 - 1980 MHz 1710 - 1785 MHz 2500 - 2570 MHz 832 - 862 MHz 703 - 748 MHz	92.44 mW 94.53 mW 96.33 mW 191.87 mW 129.72 mW	
5G (with internal antennas)	3300 - 3800 MHz 1920 - 1980 MHz 1710 - 1785 MHz 2500 - 2570 MHz 880 - 915 MHz 832 - 862 MHz 703 - 748 MHz	- - - - - - -	108 mW 148 mW 98 mW 200 mW 105 mW 182 mW 195 mW
Bluetooth EDR	2400 - 2483.5 MHz	1.076 mW	1.11 mW
Bluetooth Low Energy	2400 - 2483.5 MHz	3.467 mW	5.35mW

¹. Not available in Client Mode for Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia

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