



Streaming Guidelines

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1. Purpose and scope

This document provides operational and technical guidelines for **local production teams** delivering live video feeds to **FencingTV (fencingtv.com)**.

It explains:

- how to connect your encoder to FencingTV via **Mux**,
- how to handle **timing and block transitions**,
- what communication is expected **before and during** each competition day,
- what to do in case of **technical issues**.

The goal is to ensure a stable, professional broadcast that matches the official FIE schedule and provides a good experience for viewers.

2. Roles and communication

2.1 Main contacts

- **FencingTV Control Room**: monitors all live channels, timing and data.
- **Local Production Team**: responsible for all **video and audio** signals, overlays and scoreboards on each piste/podium.

A dedicated **WhatsApp group** will be created for each event.

All operational communication during the competition must go through this group (timing changes, technical issues, confirmations, etc.).

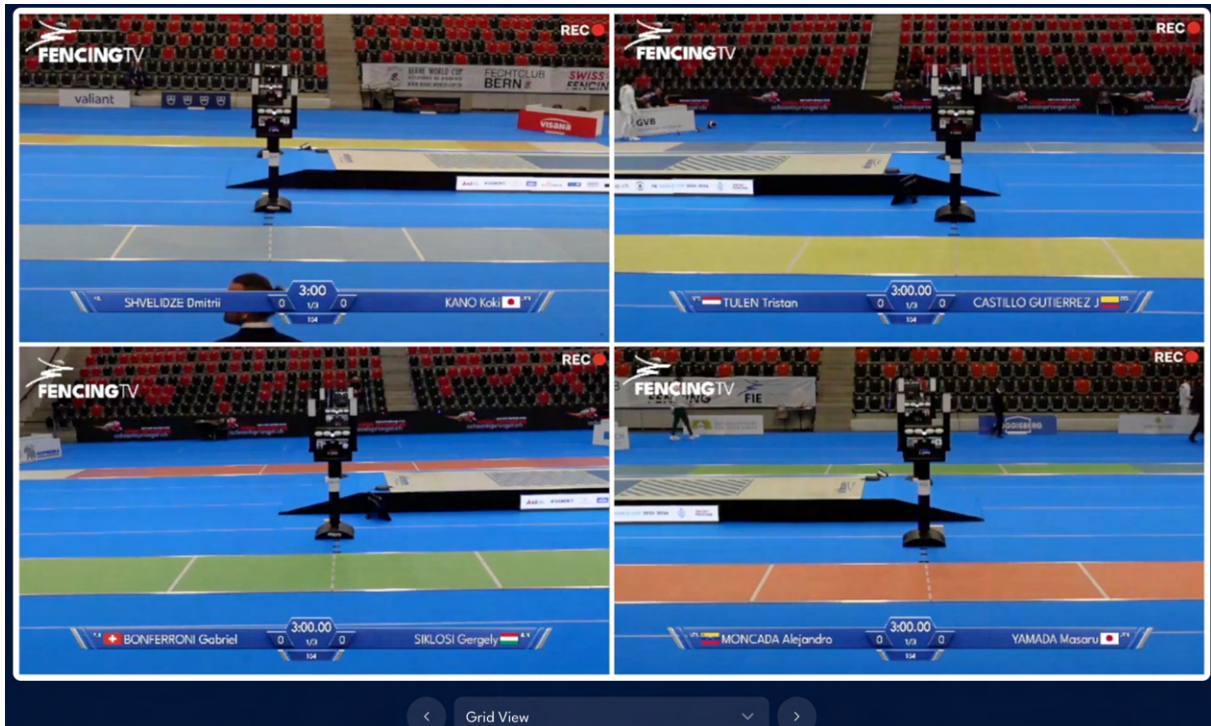
2.2 Your responsibilities as local provider

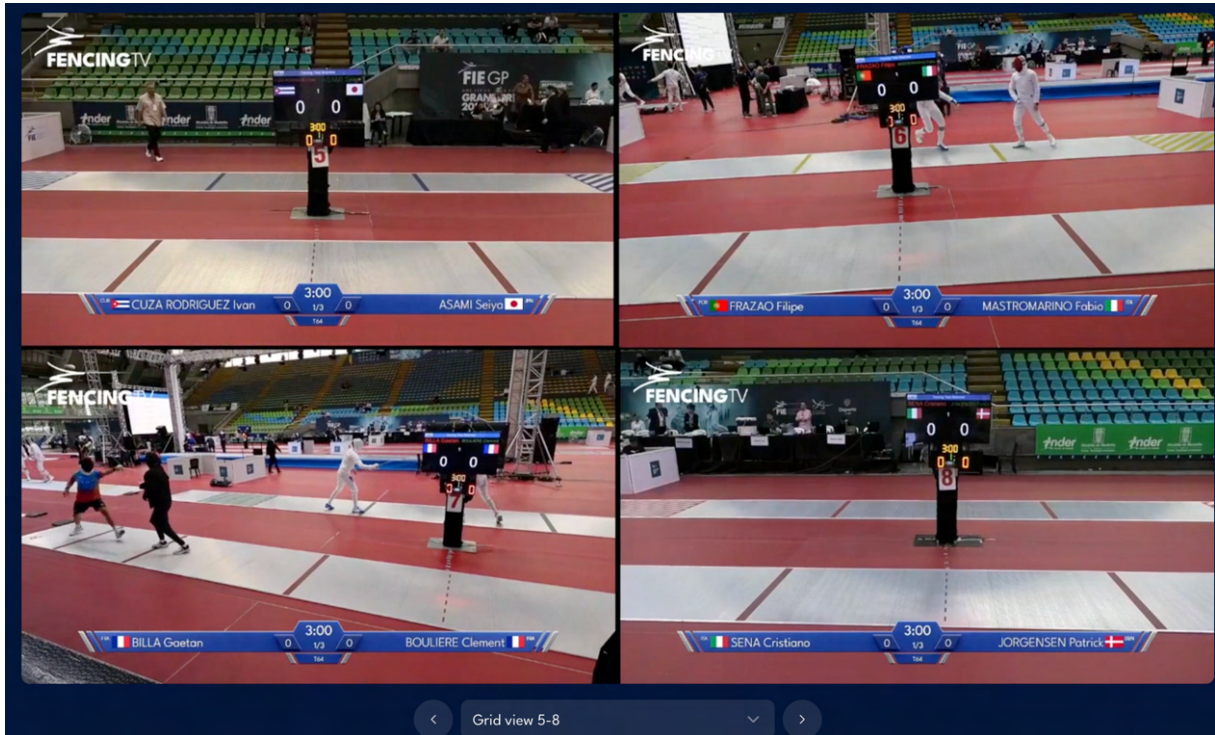
You are responsible for:

- Sending the approximate schedule of the event 2 weeks in advance with a request for Control room operation
- sending the exact schedule of the event 4 days in advance
- sending a **stable, continuous signal** for all assigned channels – minimum 250/50 mb/s network required, dedicated for streaming
- using the **correct Mux stream keys** provided by FencingTV
- starting streams in time before each block
- keeping channels live until the Control Room confirms the end of the block
- ensuring **proper audio** (commentary / arena sound)
- ensuring **correct scoreboards/overlays** on each channel
- create a grid view and send it as a separate stream for each 4 pistes (4 colors, 5-8 pistes)
- informing FencingTV immediately about any issues or delays.

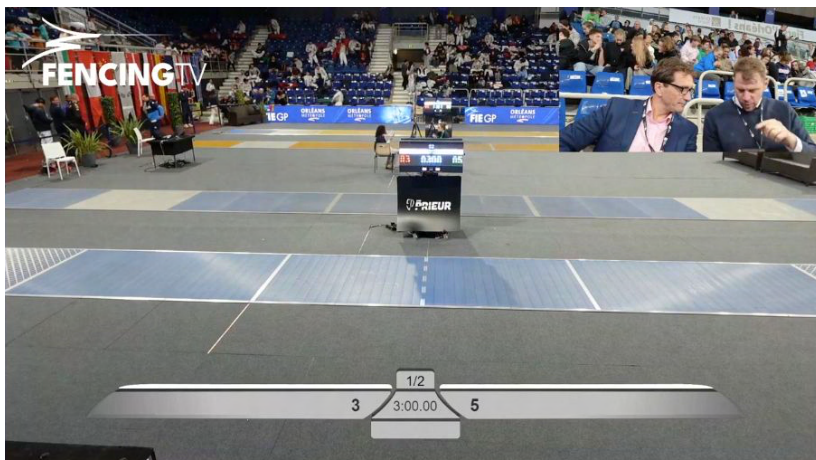
- putting the FencingTV logo on the stream – **NO OTHER LOGO OR ADVERTISEMENT IS ALLOWED ON THE STREAM**

Grid view examples:

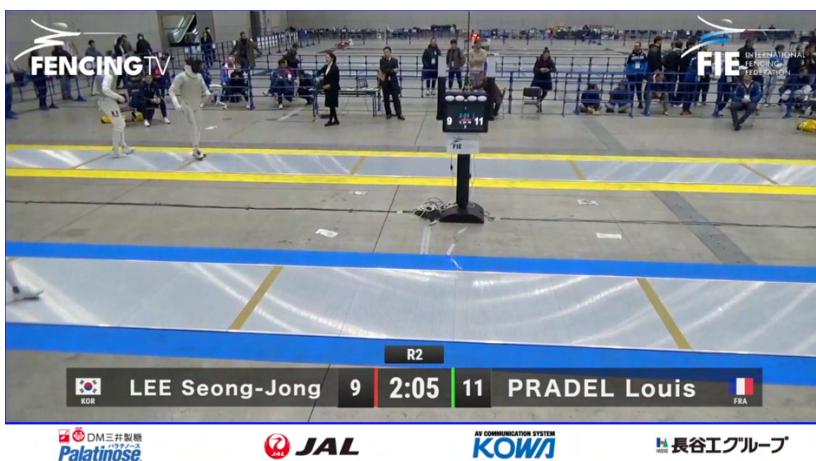




Correct layout with logo:



Incorrect layout:





FencingTV is responsible for:

- creating and managing all stream channels in the platform,
- mapping channels to events and blocks,
- monitoring streams and live data,
- providing stream keys and schedule information,
- publishing the streams on fencingtv.com.
- clipping individual bouts

3. Technical entry point (Mux)

For all events, you will send your signal to **Mux**, our live streaming provider.

You must configure your encoder with the correct RTMP/RTMPS URL:

- **RTMP server URL**
rtmp://global-live.mux.com:5222/app
– For most RTMP-compatible applications and SDKs.
- **RTMPS server URL**
rtmps://global-live.mux.com:443/app
– For OBS, Wirecast and any software requiring secure RTMPS.

For each channel + grid views, you will receive a **unique stream key**, which must be used *exactly* as provided.

Do not re-use keys between channels or blocks.

Each **block** (e.g. “Round of T64–T8”, “Semifinals & Finals”) has its own **set of keys**, and keys may change between days/blocks, depending on the event setup.

4. Timing and block operations

4.1 30 minutes before block start

At T-30 minutes (30 minutes before the official start of a block):

- Review the schedule and your local run-of-show.
- If you expect **any delay or change in timing**, you must **inform the FencingTV Control Room immediately** in the WhatsApp group.

Examples:

- "Block 2 (Round of T64-T8) will start 15 minutes late due to technical setup on podium."
- "Finals are on time, no delay expected."

This allows FencingTV to adjust block times, so the schedule shown to viewers remains accurate.

4.2 10 minutes before block start – start all streams

At T-10 minutes, you must:

1. **Start all assigned streams** for that block (all pistes + commentary channels).
2. Confirm in WhatsApp that all channels are live.

This 10-minute lead time is critical because:

- the signal must reach Mux,
- Mux must process and create the live asset,
- FencingTV must receive and cache the stream,
- the frontend needs time to warm the cache and display the channel correctly.

If you start too late (e.g. 1–2 minutes before the official start), some users may see black screens or late initialization.

4.3 Immediate quality check and feedback loop

As soon as all channels are started, FencingTV will:

- open each channel and check **video + audio** quality,
- verify that each piste/commentary feed is correctly mapped.

If a problem is detected, the Control Room will send a precise message (e.g. "Blue piste – no audio", "English Commentary – black screen").

Your responsibility:

- react immediately,
- confirm once the issue is fixed,

- if the problem cannot be fixed quickly, clearly explain the limitation (e.g. "No ENG commentary for first bout, mic replacement in progress").

4.4 During the block

During the live block, you must:

- keep all assigned channels **live** for the full duration of the block,
- inform FencingTV if a piste is finished and will no longer be used,
- maintain correct **scoreboards and overlays** on each feed,
- ensure commentary channels carry the correct audio (language, level).

If a piste finishes early, the Control Room may disable that channel on the platform. Please always confirm before stopping any stream.

4.5 Handling short technical restarts (≤ 30 minutes)

If you need to restart a camera, encoder or audio chain:

- keep using the **same stream key**,
- restart as quickly as possible.

Mux maintains a **30-minute buffer window**:

- viewers will see "The program will resume shortly",
- if you return within 30 minutes, the stream will remain one continuous recording.

Please inform FencingTV immediately if:

- you must restart an encoder,
- you expect a longer outage,
- or a specific channel cannot be brought back.

4.6 Handling long outages (> 30 minutes)

If the stream is down for more than 30 minutes:

- inform FencingTV Control Room immediately,
- describe which channel is affected and why,
- continue following instructions from FencingTV.

In such cases, the video may be split into multiple assets and require post-production work afterwards.

5. Troubleshooting & common issues

Even with perfect preparation, technical or operational issues may occur during a competition.

This section summarises the most common problems the **local production team** may face and the actions required to resolve them.

The key troubleshooting categories for providers are:

1. Configuration and stream key errors
2. Stream or internet issues
3. Audio issues
4. Scoreboard / overlay issues
5. Content or broadcast integrity issues

5.1 Configuration and stream key errors (provider-side)

The most common provider-side issue is using **incorrect stream keys**.

The provider does *not* need to check event/block mappings – only correct key-to-piste assignment.

5.1.1 Common mistakes

- using the **wrong stream key** for a piste
- swapping keys between pistes (e.g., Blue ↔ Red)
- assigning the **same key** to two channels
- using an **old or outdated** key
- copy-paste errors (missing or extra characters)
- not updating keys when a new list is provided by FencingTV

These errors cause:

- black screens
- mismatched pistes
- scoreboard issues
- incorrect or delayed stream start

5.1.2 How to avoid them

- always use the latest key list provided by FencingTV
- verify keys carefully before starting any channel
- check piste → key matching
- if anything looks wrong when going live, inform FencingTV immediately
- never reuse keys from previous events or blocks

5.1.3 If a wrong key was used

If you suspect a wrong key:

1. **Inform FencingTV Control Room immediately** in WhatsApp.
2. **Specify:**
 - which channel is affected,
 - the nature of the issue,
 - whether the stream is already live.

FencingTV will decide the next step:

- **If not yet live** → you may be instructed to replace the key immediately.
- **If already live** → do *not* change anything unless instructed.
The Control Room will assess whether a controlled restart is needed.

Providers must **not restart streams** or change keys on their own once live.

5.2 Stream and internet issues

5.2.1 Symptoms

- freezes / lag
- low-quality image
- black screen
- buffering
- dropped frames
- intermittent connection losses

5.2.2 Likely causes

- venue internet instability
- encoder malfunction
- camera or cable issues
- hardware reset
- poor upload bandwidth

5.2.3 Required action

Immediately inform FencingTV via WhatsApp with a clear description:

- "Blue piste: frozen frame"
- "Red piste: signal drop"
- "Commentary ENG: black screen"

5.2.4 Short restarts (≤ 30 minutes)

If you need to restart hardware:

- keep using the same stream key
- restart as quickly as possible
- Mux holds the stream for **30 minutes**
(viewers see *"The program will resume shortly"*)

5.2.5 Long outages (> 30 minutes)

If the signal is lost for over 30 minutes:

- notify FencingTV immediately
- explain what happened
- follow instructions
- the stream may require post-event reconstruction

5.3 Audio issues

5.3.1 Symptoms

- no audio
- incorrect audio channel
- commentary missing
- echo, distortion or static
- volume too low or too high

5.3.2 Cause

Audio issues always originate from the **local production chain**.

5.3.3 Required action

Report to FencingTV immediately:

- affected channel
- exact audio symptom
- whether commentary or arena audio is impacted

5.4 Scoreboard / overlay issues

5.4.1 Symptoms

- scoreboard missing
- wrong bout or wrong fencer names
- incorrect scores

- overlay not updating
- mismatched data on screen

5.4.2 Cause

Scoreboards and overlays are generated by the **local provider** as part of the video feed.

5.4.3 Required action

Notify FencingTV with:

- channel name
- description of the issue
- screenshot if helpful

FencingTV may request a refresh or correction.

5.5 Content or broadcast integrity issues

5.5.1 Symptoms

- inappropriate or incorrect commentary
- wrong language on a commentary feed
- misidentification of athletes
- improper visual content
- unexpected or non-compliant behaviour on stream

5.5.2 Required action

Notify FencingTV supervisors immediately.

Provide:

- channel
- block
- approximate timestamp

If required, these segments can later be removed using **asset clipping**.

5.6 Summary

For local providers, the key troubleshooting responsibilities are:

- stream key correctness
- stable, high-quality video signal
- correct, clean audio



- proper scoreboards and overlays
- notifying FencingTV immediately about any issue

FencingTV will handle:

- event mappings
- block timing
- data synchronization
- decisions regarding restarts or corrections
- individual bouts clipping

Clear, prompt communication ensures a smooth broadcast.