

STAGECONNECT

USER MANUAL

Live SMPTE LTC, MIDI Timecode and OSC straight from your DJ players. Lighting, video and playback follow the track that is playing, frame by frame, with no pre-recorded timecode.

Contents

- | | |
|---|---|
| 1. What STAGECONNECT is | 11. OSC output and Resolume bridge |
| 2. Editions and requirements | 12. Web monitor and OBS overlay |
| 3. Installation | 13. Setlist and history |
| 4. License activation | 14. MIDI mapping and keyboard shortcuts |
| 5. Connecting the players | 15. Language, theme and labels |
| 6. The main screen | 16. Managing the license and moving machines |
| 7. SMPTE LTC output | 17. STAGE CONNECT TEST: rehearsing without hardware |
| 8. MASTER deck: Auto, Follow fader and LOCK | 18. Troubleshooting |
| 9. STAGE CONNECT Audio virtual audio driver | 19. Specifications |
| 10. MIDI Timecode (MTC) output | 20. Support |

1 What STAGECONNECT is

STAGECONNECT reads, in real time, the playback position of the DJ players connected to the stage network and turns it into standard timecode. The lighting console, the media server or the playback system follow the track that is playing, frame by frame, with no timecode recorded into the file and without the DJ having to stop improvising.

From the same clock it generates several outputs at once:

- **SMPTE LTC:** audio timecode on any audio output (a physical interface or the STAGE CONNECT Audio virtual driver).
- **MIDI Timecode (MTC):** on any MIDI port, physical or virtual.
- **OSC:** real tempo, beat phase and transport for Resolume, TouchDesigner, QLab or any OSC receiver.
- **Web monitor and OBS overlay:** title, BPM, timecode and state of every deck in any browser on the network.

It also shows the RGB waveform, cue points, loops, BPM with pitch, key and times of each deck, and keeps a history of what was played with its exact time.

COMPATIBILITY

Denon DJ / Engine OS (StageLinq): SC6000, SC6000M, SC5000, SC5000M, PRIME 4, PRIME 2, PRIME GO, SC LIVE, LC6000. Pioneer DJ / AlphaTheta (Pro DJ Link): CDJ-3000, CDJ-2000NXS2, XDJ, OPUS-QUAD and compatible units. Software: Serato DJ Pro/Lite and VirtualDJ on the same computer.

2 Editions and requirements

Edition	Requirements	What it does
macOS	macOS 13 Ventura or later. Apple Silicon and Intel (universal binary).	Full application: LTC, MTC, OSC, web monitor, history, MIDI mapping, STAGE CONNECT Audio driver.
Windows	Windows 10 / 11, 64-bit (x64).	Full application, with the STAGE CONNECT Audio virtual driver.
iPad	iPadOS 17 or later.	Booth monitor and LTC generator through the iPad audio output (jack, USB-C or a compatible interface).
Android	Android 10 or later.	LTC generator and OSC output.
Network	Computer and players on the same local network. Ethernet recommended (switch or the mixer's LINK port). No internet needed during the show.	
Audio	Any audio output for the LTC. To feed the timecode to another application on the same computer, the bundled STAGE CONNECT Audio driver (section 9).	
MIDI	Any MIDI port for MTC; on macOS the system IAC Driver also works.	

3 Installation

macOS

- 1 Open `STAGE-CONNECT-2.2.0.dmg` and drag **STAGECONNECT** to Applications, or run `STAGE-CONNECT-2.2.0.pkg` and follow the assistant.
- 2 First launch: right-click the app → **Open** → Open. macOS asks only once.
- 3 When macOS asks whether the app may look for devices on the **local network**, click **Allow**. Without that permission the players do not appear.
- 4 Optional: install the `STAGE-CONNECT-Audio-1.0.0.pkg` driver if you are going to send the LTC to another application on the same Mac (section 9).

If at any point you cannot see the players, check System Settings → Privacy & Security → Local Network and make sure STAGECONNECT is enabled.

Windows

- 1 Run `STAGE-CONNECT-Setup-2.2.0.exe` and follow the assistant. If Windows shows the SmartScreen warning, click **More info** → **Run anyway**.
- 2 On first launch, allow access on **private** networks in Windows Firewall. Mark the stage network as private, not public.
- 3 Optional: run `Install-StageConnectAudio.ps1` as administrator to install the virtual driver (section 9).

iPad and Android

Install the app from the link supplied by your dealer or from **stageconnect.io/downloads**. On the iPad, connect the audio output (jack or USB-C) to the timecode reader; on Android you can use the audio output or send OSC over Wi-Fi.

4 License activation

The activation screen appears the first time you open the app. Enter the key you received from STAGECONNECT or from your dealer:

Lifetime	never expires, up to 2 machines at once (for example the show laptop and the studio).
Monthly	subscription renewed every month, 1 machine.
Trial	full functionality for the period set by the dealer, 1 machine.

Activation needs internet **once**. From then on the license is bound to that machine and the app works offline. There are no checks in the middle of a show. If you spend a long time offline, the app will ask you to confirm it again with internet.

Booth emergency

If you cannot activate at a gig (no network, key on another machine, key forgotten...), click **I can't activate**: you will see this machine's **fingerprint** (12 characters). Give it to support or to your dealer and you will receive an emergency code. Paste it whole into the activation field. It only works on that machine and expires on its own after a few hours.

TIP

Activate the license at the office or the hotel, not in the booth. Activation is the only part of STAGECONNECT that needs internet.

5 Connecting the players

Denon DJ / Engine OS (StageLinq)

Connect the computer to the same switch as the players or to the mixer's LINK port. The units appear by themselves; each layer (A/B) of an SC6000 is a separate row. Nothing needs to be changed on the player.

Pioneer DJ / AlphaTheta (Pro DJ Link)

Connect the computer to the Pro DJ Link network (switch or the DJM's LINK port). Players appear on their own; on CDJ-3000 the position is immediate and on earlier models it is derived from beat and BPM.

IMPORTANT

Close rekordbox on the same computer: while it is open the CDJs are not visible.

Software (Serato DJ, VirtualDJ)

STAGECONNECT reads the live state of Serato DJ Pro/Lite and VirtualDJ on the same computer. **Dual** mode allows hardware and software at the same time, each with its own row.

AUTO / DENON / PIONEER selector in the top bar: in AUTO the app listens to both protocols and switches to Dual if it finds both brands. Pin a single one if you share the network with units you do not want to see.

6 The main screen

Each detected player is a row with: deck letter, receive LED (RX), MASTER indicator, title and artist, BPM with pitch, key (Camelot), elapsed and remaining time, current timecode, RGB waveform with beat grid, cue points and active loop, and the **SMPTE** and **LOCK** buttons.

- **Large view**: waveform with a centred needle, CDJ style. **Small view**: the whole track per row.
- **MASTER**: the row that feeds the main timecode (section 8).
- **Monitor** (screen icon): full-screen window for the booth monitor, in timecode-only or data mode.
- **Log**: technical log. Useful if support asks you for information.
- **E-STOP**: emergency stop button. Silences every timecode output instantly (LTC, MTC and OSC) without closing the app. It can be mapped to MIDI or to a key.

7 SMPTE LTC output

The STAGECONNECT LTC **replicates exactly what the player does**, as if the timecode were recorded in the track itself:

- **Stop:** if the DJ pauses, presses CUE or the track ends, the timecode stops at that instant. While paused the LTC is silence, by design: the reader keeps the last frame.
- **Pitch:** the timecode follows the pitch fader in every range (± 8 , ± 16 , ± 50 , ± 100 %). The LTC bit rate is scaled like a tape running faster or slower; the reader shows the same position as the player.
- **Jog and scratch:** when the platter moves the timecode follows, backwards too (standard reverse LTC, which readers decode without trouble).
- **Jumps:** cue, hot cue, loop or search produce a clean timecode jump on the next frame boundary; the current frame is finished whole and the reader does not lose lock.

7.1 Setting up the output

- 1 **CONFIG** → **SMPTE LTC**. Choose the show's **frame rate**: 24, 25 (Europe), 29.97 (NTSC, with or without drop-frame) or 30 fps. It must match what the lighting console or media server expects.
- 2 Choose the **output device**. You can tick several at once: the same LTC goes out of all of them. To send it to another app on the same computer choose **STAGE CONNECT Audio**.
- 3 Set the **level**. LTC at -6 dBFS is a good starting point; readers accept anything from -20 to 0 dBFS. Into a virtual driver you can go up to $-3 / 0$ dBFS.
- 4 Press **SMPTE** on the row (or enable MASTER). The timecode starts when the track moves.

7.2 MASTER and per-row generators

- **MASTER:** the house clock. It follows the deck in charge according to the selected mode (section 8). When the DJ crosses to the other deck, the LTC jumps to the playhead of the new track.
- **SMPTE per row:** each player can also have its own generator and its own output. With **LOCK** enabled that row keeps its timecode and MASTER does not override it: one area of the show per audio channel.

The app warns in red if two generators try to use the same audio channel: the timecodes would collide. The same LTC on two different devices is fine.

7.3 Network loss

CONFIG → **Network emergency**. If the cable, the switch or the Wi-Fi drops, choose what the LTC should do:

Freeze	Keeps the last received frame (silence). The receiver holds the position and waits.
---------------	---

Follow network	Stops and automatically resumes from the real position as soon as packets return.
Continue manual	Keeps running on the audio clock at the last known speed until the network returns. Recommended live when the show cannot stop.

8 MASTER deck: Auto, Follow fader and LOCK

In a DJ show there is always one deck "in charge": the one the audience is hearing. That is the one that must feed the main timecode. In STAGECONNECT the *master deck* selection is designed from the point of view of the lighting or video operator, who needs to know at every moment which track is driving the programming and needs that change to be predictable.

8.1 Auto mode (follow On Air)

This is the default. STAGECONNECT picks the MASTER deck in this order:

1. The deck that is **on air**: mixer fader up *and* playing.
2. If the mixer does not report the fader, the deck flagged as system **MASTER** (the player's Master LED).
3. If there is no master, any deck that is **playing**.

The selection is **sticky**: while the current deck still qualifies, MASTER does not jump even if another deck also qualifies. In other words, when the DJ opens the fader of the second deck to mix, the timecode stays on the track that was already playing; it only changes when the first deck stops being on air (fader closed or paused). The programming never "dances" during a long blend.

8.2 Auto with "Follow fader (On Air)" off

In CONFIG → **Master** you can switch off **Follow fader (On Air)**. The mixer fader is then ignored and MASTER is decided only by the player's Master LED and, failing that, by the deck that is playing. Use it when:

- The fader data coming from the mixer is noisy or incomplete (third-party mixers, chains with several mixers).
- You do not want a crossfader move to change the timecode: for example when the DJ does quick cuts, or when the show is programmed on a single track and the other deck is used for effects.

8.3 Pinned (LOCK)

Press **LOCK** on a row to pin MASTER to that deck by hand. STAGECONNECT stops deciding: the timecode follows that player whatever happens on the others, until you remove the LOCK or move it to another row. It is the option for shows with a single "show" player and for any moment when the operator wants to take control (programmed intro, a number with fixed timecode, DJ changeover).

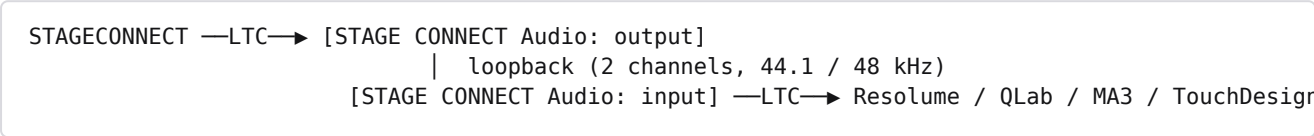
Mode	Who decides	When to use it
Auto	On-air fader → system Master → playing deck. Sticky.	Normal DJ set with a compatible mixer. Default.
Auto without fader	System Master → playing deck. Sticky.	Unreliable fader or quick cuts; you do not want the crossfader in charge.
LOCK	The operator.	One show deck, programmed moments, full manual control.

TIP

The three modes and each row's LOCK can be mapped to a MIDI controller or to keys (section 14) so you can switch them without looking at the computer.

9 STAGE CONNECT Audio virtual audio driver

STAGE CONNECT Audio is a virtual audio device installed alongside the app. STAGECONNECT sends the LTC to its *output* and any other program on the same computer — Resolume, QLab, grandMA3 onPC, TouchDesigner, Ableton, Reaper... — receives it on its *input*, with no physical cable, no extra audio interface and no loss of quality.



macOS	2 channels, 44.1 or 48 kHz (48 kHz by default). Installed with STAGE-CONNECT-Audio-1.0.0.pkg (right-click → Open the first time). System audio drops out for an instant during installation; no restart needed.
Windows	Run Install-StageConnectAudio.ps1 in PowerShell as administrator and follow the prompts. If it does not appear after installing, restart the computer and run the script again.

9.1 Selecting it as the LTC output

STAGECONNECT → CONFIG → **SMPTE LTC** → **Audio output** → **STAGE CONNECT Audio**. 48 kHz, level -3 / 0 dBFS. You can tick it together with a physical interface: the LTC goes out of both.

9.2 Selecting it as the input in the receiver

Application	Where
Resolume Arena / Avenue	Preferences → Audio → Input: STAGE CONNECT Audio. In the SMPTE module (Preferences → SMPTE) choose channel 1 (or 2) and the same frame rate as in STAGECONNECT.
QLab	Settings → Audio → STAGE CONNECT Audio input. Workspace Settings → Timecode → LTC Input, channel 1, same frame rate.
grandMA3 onPC	Menu → In & Out → Timecode / LTC → input device STAGE CONNECT Audio. Set the frame rate and assign the timecode to the show.
TouchDesigner	Audio Device In CHOP → STAGE CONNECT Audio → LTC In CHOP .
Ableton Live / Reaper / Logic	Audio input STAGE CONNECT Audio 1-2. Use your DAW's LTC reading plug-in or feature, or an LTC → MTC converter.

On macOS the STAGE CONNECT Audio input counts as a **microphone**: grant permission to the receiving application in System Settings → Privacy & Security → Microphone. If the receiver and STAGECONNECT run at the same rate (48 kHz) there is no resampling and the LTC arrives bit for bit.

WARNING

Do not set STAGE CONNECT Audio as the system's *default* output: you would hear LTC through the speakers. Select it only inside STAGECONNECT.

10 MIDI Timecode (MTC) output

CONFIG → **MTC**. Choose the MIDI port (physical or virtual) and enable. MTC runs alongside the LTC, with the same frame rate and from the same playhead.

- **macOS**: to create a virtual port, Audio MIDI Setup → Window → Show MIDI Studio → IAC Driver → tick "Device is online".
- **Windows**: use a virtual MIDI port (for example loopMIDI) or a USB MIDI interface.

11 OSC output and Resolume bridge

CONFIG → **OSC**. Enter the receiver's IP and port. STAGECONNECT sends, per deck, position, real BPM (with pitch applied), beat phase, transport state and title.

The **Resolume Arena / Avenue** bridge comes preconfigured: it writes the tempo into the composition tempo controller and resyncs the phase on the downbeat. In Resolume enable OSC Input in Preferences → OSC and point STAGECONNECT at that IP and port (7000 by default). If your Resolume version does not accept the tempo by value, switch the bridge to **tap** mode, which works in every version.

For frame-accurate video use the LTC (section 9) in Resolume's SMPTE module; OSC is ideal for tempo-driven effects and beat-triggered clips.

12 Web monitor and OBS overlay

CONFIG → **Web server**. Once enabled, any browser on the network can open `http://computer-IP:8080/` and see titles, BPM, timecode and state of every deck, refreshed in real time, in any of the app's 11 languages.

-  data view for lighting, VJ, production or a tablet on stage.

- `/obs` transparent-background overlay: add it in OBS as a "Browser" source to put title and timecode on the stream.

The **STAGECONNECT Monitor** app for iPad uses the same server and adds the iPad's own LTC generator.

13 Setlist and history

Setlist window: paste the show list (one track per line, optionally with timecode, for example `00:01:30:00 | Artist - Title`, or a CSV). The app links what is playing to each entry by itself. At the end you have the history with the exact time of every track, exportable as CSV or text, for the promoter, rights management or the show report.

14 MIDI mapping and keyboard shortcuts

CONFIG → **MIDI** → **Learn**: click the function and move the control on the controller. Mappable: MASTER, master selection mode, SMPTE per row, LOCK per row, E-STOP, views, monitor and setlist. Keyboard shortcuts are shown in the same panel and can be changed.

15 Language, theme and labels

- **Language**: Spanish, English, French, Italian, German, Chinese, Japanese, Thai, Catalan, Galician and Basque (CONFIG → Language). The web monitor uses the same 11 languages.
- **Theme**: day and night modes.
- **Labels**: every row and every output can be renamed (up to 32 characters): "Left deck", "Lights", "Video"... Used in the app, in the monitor and in the LTC rows.

Units name themselves after the model they announce on the network (SC6000, PRIME 4, CDJ-3000...).

16 Managing the license and moving machines

- **From the app**: CONFIG → License → **Deactivate** releases this machine; the key becomes available to activate on another one.
- **From the portal**: stageconnect.io/licencia with your key and the purchase e-mail. There you can see your active machines and release the old one if you no longer have access to it (3 changes every 30 days).
- The lifetime license allows 2 machines at once. Monthly and trial, 1.
- If you bought through a dealer, they can handle these operations for you.

If the system date goes backwards, or a subscription has been expired for a while without a connection, the app will ask you to confirm the license with internet. That is normal: connect for a moment and carry on.

17 STAGE CONNECT TEST: rehearsing without hardware

STAGE CONNECT TEST is a simulator that behaves on the network like a real player: to another machine on the LAN it is indistinguishable from an SC6000 (StageLinq) or a CDJ-3000 (Pro DJ Link). It has decks with a real audio track, pitch, jog, cue and loops. Use it to:

- Program lighting and video at the office, without players, with the same timecode the show will have.
- Check the whole chain (network → STAGECONNECT → LTC → receiver) before reaching the venue.
- Train operators.

Run it on a second computer on the network, or on the same one: in that case STAGECONNECT detects it through a local channel and also shows title, artwork and waveform.

18 Troubleshooting

Symptom	What to check
Players do not appear	Same network segment as the units (cable, not guest Wi-Fi). Local Network permission (macOS) or private network in the firewall (Windows). A firewall on the computer or the switch can block communication with the players. rekordbox closed.
The lighting console does not lock to the LTC	Same frame rate on both sides. Level between -20 and 0 dBFS. Mono cable from an unprocessed output (no EQ or limiter). Check that the deck is moving: while paused the LTC is silence by design.
Timecode is offset	Receiver frame rate equal to the app's. On Denon units the exact position arrives once the app confirms the file information (a few seconds after loading the track); on CDJ-3000 it is immediate. On earlier CDJs the position is derived from the beat counter.
Timecode jumps during the mix	MASTER is changing deck. Review the mode (section 8): switch off Follow fader if the fader is noisy, or use LOCK.
Two timecodes are mixed	Two generators on the same audio channel. Give each one a different device or channel (the app warns in red).
STAGE CONNECT Audio does not appear	macOS: reinstall the pkg; after a major macOS update it may need reinstalling. Windows: restart the computer and run the script again.
The receiver does not see the driver input	macOS: Microphone permission for the receiving app. Both programs at 48 kHz. Device volume at 0 dB and not muted in Audio MIDI Setup.
LTC is heard through the speakers	STAGE CONNECT Audio is set as the system default output. Set your speakers back.
I cannot activate	No network: ask for an emergency token with the machine fingerprint. "Key in use": release the other machine from the app or from the portal.
LTC stopped when the USB interface was unplugged	The app restarts by itself keeping the timecode and, if the device no longer exists, falls back to the default output. Select the interface again when you reconnect it.
I need to send information to support	Log window: copy the <code>LTC[. . .]</code> lines while playing and send them to support@stageconnect.io with the player model and the timecode receiver.

19 Specifications

LTC output	Linear SMPTE LTC, 24 / 25 / 29.97 (optional drop-frame) / 30 fps. Any audio device, several simultaneous outputs, MASTER generator and per-deck generators. Adjustable level. Standard reverse. Output-latency compensation.
Synchronisation	Exact player position. Play, pause, cue, pitch, jog and scratch replicated in real time.
MASTER selection	Auto (on air → master → playing, sticky), Auto without fader, manual LOCK. Global E-STOP.
MTC output	Over MIDI, physical and virtual ports.
OSC output	UDP to a configurable IP and port. Position, tempo, beat, transport, title. Resolume bridge (tempo / tap / resync).
Web monitor	Any browser on the network, OBS overlay. 11 languages.
Virtual driver	STAGE CONNECT Audio: 2 channels, 44.1 / 48 kHz. Included on macOS and Windows.
Input protocols	Denon StageLinq, Pioneer Pro DJ Link, Serato DJ, VirtualDJ.
License	Bound to the machine. One-time online activation, offline use. Lifetime 2 machines, monthly 1, trial 1. Emergency code.
Editions	macOS 13+ universal, Windows 10/11 x64, iPad (monitor + LTC), Android (LTC + OSC).

20 Support

- Web and downloads: **stageconnect.io**
- Technical support: **support@stageconnect.io**
- License portal: **stageconnect.io/licencia**

For a fast answer include: app version, operating system, player and mixer model, timecode receiver and the Log lines.

© 2026 STAGECONNECT. All rights reserved. Denon DJ, Engine OS, StageLinq, Pioneer DJ, AlphaTheta, Pro DJ Link, rekordbox, Serato, VirtualDJ, Resolume, QLab, grandMA3, TouchDesigner, Ableton, Reaper and OBS are trademarks of their respective owners and are mentioned for compatibility purposes only.