

Lockit+

Firmware Version 8.07
Software Version 2.9



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1. Introduction

Lockit+

The Lockit+ combines the state of the art, high-accuracy Ambient Lockit Timecode and Sync technology with advanced metadata management options to improve your workflow between set and editing. It's the successor of both the MasterLockit and MasterLockitPlus. A lot of user input has gone into further development to make the Lockit+ the true flagship of the Lockit family.

Highly Accurate Timecode and Sync Generator

For over 30 years, Ambient Timecode has been synonymous with precision and reliability. Like the Lockit, the Lockit+ provides all timecode and sync formats and full ACN compatibility.

But wait... there is more! We called it Lockit+ because of its modular design and the many added values.

+ Modular Hardware Design

The Lockit+ is available with different extensions. They offer additional interfaces (like USB or SuperSlot) to serve different situations on set or in the studio.

+ WiFi Access & Web Interface

The built-in server spans a local WiFi, giving users browser-based access to all the Lockit+ features via mobile device or computer.

+ Advanced Control and Monitoring

The web interface of the Lockit+ gives access to advanced generator settings and monitoring of all Lockit devices within the ACN.

+ Metadata Hub

The Lockit+ collects all logs within the ACN and uploads them to a **C2C project on Frame.io**. It can also extract and collect technical metadata from compatible cameras and send them to the **Ambient LockitScript App** for script supervisors.

+ TX Mode

Lockits can be started in the so-called TX mode to become a timecode bridge. The TX Master will automatically adapt its speed to the external timecode source and broadcast TC start and stop via ACN to all other Lockits. This is especially relevant if you want your audio recorder to be the master clock on set, in playback situations or in virtual production setups.

+ Lens Metadata Processing

The Lockit+ stores key **Cooke /i** lens metadata frame-accurately in an open file format - at the same time it makes the data accessible live via WiFi or ethernet.

+ Frequency Scanning

Plug the separately available antenna into a USB port of the Lockit+ to perform a full frequency scan. In the web interface you get concrete suggestions for available frequencies for your transmitters and receivers.

+ Remote Control

Use the web interface of the Lockit+ to remotely control your Sound Devices 6 or 7 series recorders.

+ More to come

The Lockit+ design is future-proof. The modular approach allows to elegantly offer further applications and extensions in the future.



ACN stands for Ambient Communication Network and is our own wireless network.

It utilizes an extremely reliable, proprietary 2.4GHz network with 15 selectable channels for communication to minimize lag and interference with other radio sources. All gathered information is buffered until it is successfully received and stored.

The ACN is used to interchange timecode related information including time, frame rate and user bits as well as device meta-data between Lockits or third-party devices with built-in Lockit Module.

Learn more about the beauty of ACN here:

<https://ambient.de/en/acn-technology>

2. Unit Description

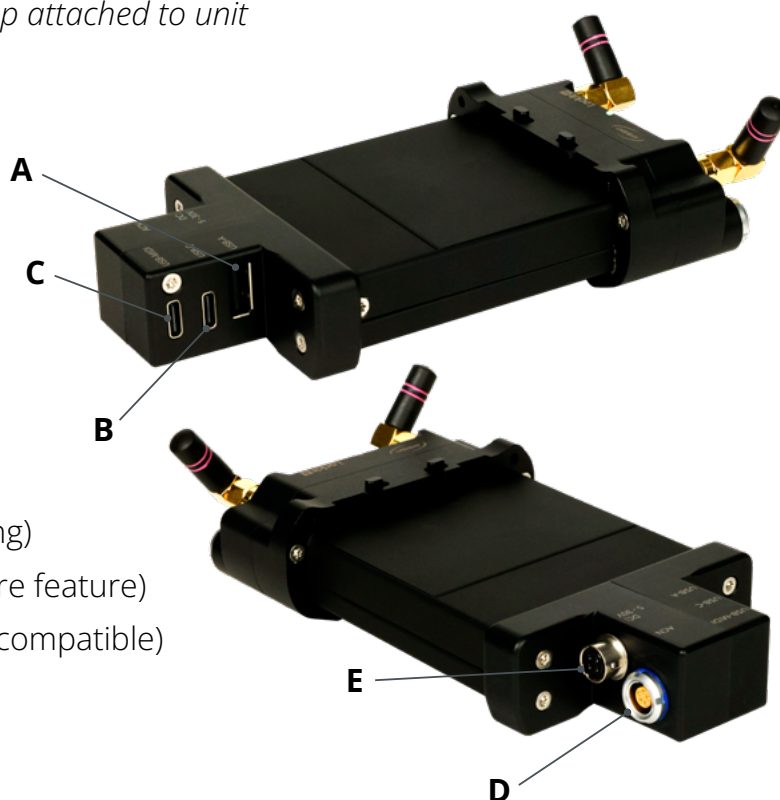


Front

- 1 Blue TC & ACN Connector (LEMO-compatible)
- 2 Yellow TC & Sync Connector (LEMO-compatible)
- 3 ACN Antenna, SMA RP 2.4GHz, *keep attached to unit*
- 4 WiFi Antenna, SMA RP 2.4GHz, *keep attached to unit*
- 5 RGB Status LED
- 6 OLED Display
- 7 Power Button
- 8 Red Button
- 9 Green Button
- 10 Battery Compartment (2x BX1)

Standard Extension

- A USB-A connector
- B USB-C connector (also for powering)
- C USB-C connector for Midi TC (future feature)
- D Blue TC & ACN Connector (LEMO-compatible)
- E Hirose (for external powering)



3. Timecode, Sync & Device Settings

Basic options are adjustable via display menu.

- Project Rate:
23.98 / 24 / 25 / 29.97 / 29.97 DROP / 30 / 47.95 / 48 / 50 / 59.94 / 59.94 DROP / 60 FPS
- Sync Output:
off / P / PsF / i / 48 kHz / 96 kHz / 192 kHz
- ACN Channel:
11 – 25 / off
- TC Start Preference: *Note: RTC-12 automatically sets Start TC to RTC in the mornings or RTC-12 after 1pm.*
RTC / RTC-12 / zero / one / manual
- LED Brightness:
1 – 10
- Auto Power
- TC & Sync Offset: *Note: find more information in chapter 9. [Special: Wireless TC & Sync Offset](#)*
-10.00 ... +10.00 frames

Applied settings will be persistent over a reboot until reset or changed.

Further options and features are available via the Lockit+ web interface. Find more information in chapter [11. Features of the Web Interface](#).

Good to Know: Plug and Play Timecode

Instead of using the graphical menu of the Lockit (pressing  Red &  Green simultaneously) – feed in timecode and frame rate externally. Just plug the **Lockit** to the TC Out port of another device (e.g. your Sound Recorder) and it will automatically take over time- code and frame rate.

This only works if no Single Jam has been sent - or a C-Jam / TX Master is active in the *ACN channel*. Indicated by the LED flashing red and green alternately.

Timecode compare mode for Lockit devices with an OLED

If the device is already jammed and you attach an external timecode source, you can enter the “Compare Screen”. This displays a potential timecode drift between external source and your Lockit.

4. LED Blink Code

Mode	1sec	2sec
ACN Jam (C-Jam, TX, Single)		
Jam transmitted / sent		
Jam received		
Lockit, NanoLockit, LockitSlate Take2, Lockit+ (in standby) or LockitModule		
TC out mute; will start with preference		
TC out mute; will start from fallback zero		
TC out active		
TC out active; output level reduced		
TC out active; low battery		
TC out mute; low battery		
LockitBT with BT active / Lockit+ with WiFi active		
TC out mute; will start with preference		
TC out mute; will start from fallback zero		
TC out active		
TC out active; low battery		
TC out mute; low battery		
TX Mode Warnings		
TC out mute; no initial LTC source		
TC out active; LTC source lost/stopped		
Charging Mode, Unit off		
ext. Power, charging		
ext. Power, fully charged		
flash		blink

5. Powering

The Lockit+ can be powered by 6 to 24 Volts DC via a Hirose 4-pin connector, pin 1 carrying GND pin 4 positive voltage. Supply ratings and typical values in operation:

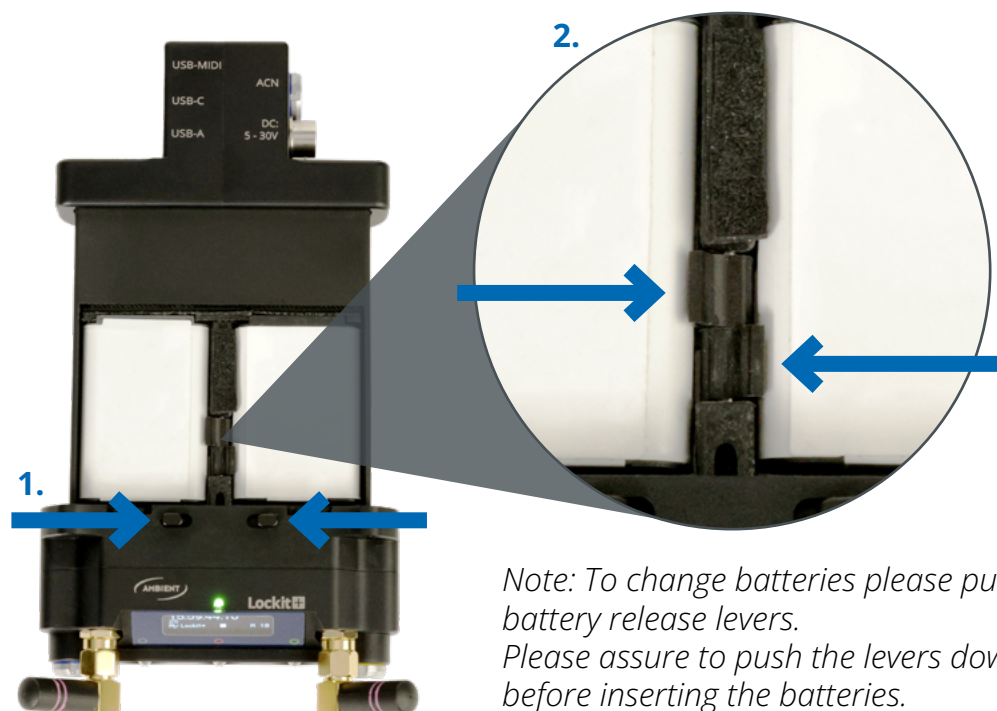
6V DC min. rating 3.5A, 12V DC min. rating 1.7A, 24V DC min. rating 1A

Alternatively, you can also power the Lockit+ via the USB-C socket.

Supply rating: **USB-C PD (power delivery) 5V, 3A**

It is also possible to run the Lockit+ only with the two included BX1 batteries.

Please make sure to only change the batteries one after the other. This workflow keeps the timecode running while the unit is switched on and also maintains the real-time clock when switched off. In basic operation the batteries will last for up to 4 hours.

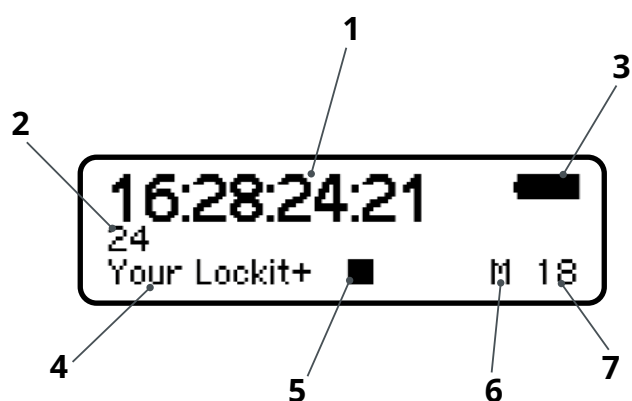


Note: To change batteries please push the battery release levers. Please assure to push the levers down before inserting the batteries.

If the Lockit+ is switched off and power is applied, the LED will slowly blink red to indicate charging of the batteries. Fully charged, the LED will be lit permanently green.

If the Lockit+ is in operation the charging status and the connected external power supply are shown in the display.

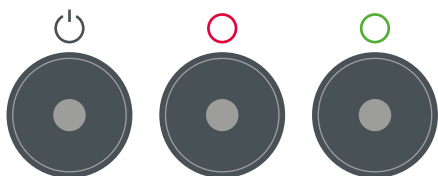
6. Display



- 1 Timecode
- 2 Project Rate (FPS)
- 3 Battery Status / Ext. Power
- 4 Unit ID / Unit Name
- 5 Status WiFi
 - ☒ Off/Standby
 - ▲ Starting
 - On
 - ▼ Shutting down
- 6 ACN Mode
- 7 ACN Channel



7. Basic Button Operations



Turn On: Press and hold  **Power** until LED lights green to start unit.

Turn Off: Press and hold  **Power** for 5 seconds until power off menu appears. Continue with additional button presses:

 **Power:** Shutdown

 **Red:** Standby*

 **Red** &  **Green:** Reset WiFi / LAN settings

Access Menu: While the unit is running you can access the menu by pressing  **Red** &  **Green** simultaneously.

There you can easily set:

- ACN Status
- Project Rate
- Sync Output
- ACN Channel
- TC Start Preference
- LED Brightness
- TC & Sync Offset
- Device Info, WiFi / LAN Status

Tap  **Red** to decrease or  **Green** to increase a parameter value.

Tap  **Red** &  **Green** simultaneously to confirm and proceed.

Tap  **Power** to cancel or to leave the menu.

Applied settings will be persistent over a reboot until reset or changed.

Reset: When switched off, press and hold  **Red** &  **Green** simultaneously to perform a factory reset of the Lockit Module.

8. Operation Modes

Within the ACN there is always one Lockit device acting as timecode transmitter, broadcasting timecode and frame rate to the Receivers. You can choose between C-Jam, TX and Single Jam Mode.

8.1 C-Jam Mode (Continuous Jam)

In C-Jam Mode we utilize our ACN network to completely prevent any drift. In this mode one Lockit device acts as a C-Jam Master. It sends a pulse through the ACN every six seconds to constantly align with all other Lockit boxes.

To start the unit as C-Jam Master press and hold  **Green**, then tap  **Power**.



On the display you will see an **(M)** appear, indicating that the device is ready to go.

Press and hold  **Green** to confirm the timecode and start the C-Jam.

The icon on the display will switch to **M**.

All other Lockits (that are on the same ACN channel) will now automatically follow the C-Jam Master and display an **ACN icon** at the lower right of the display.



The Lockit+ will remember that it has been set to C-Jam Master. It will automatically start in C-Jam master Mode when booted via the power button afterwards. You can also start and stop the C-Jam Mode and adjust your start-up preferences in the Lockit+ web interface.

Since even in C-Jam Mode every unit still uses its own VCO (voltage-controlled oscillator) to generate timecode (and sync), they don't necessarily have to be in range of the C-Jam master constantly to be accurate.

Lockit devices that are powered up at a later point in time will automatically follow the C-Jam Master and set their timecode and frame rate accordingly.

Note: Just one unit is allowed to be the C-Jam Master within an ACN channel. A second master will be blocked and will also automatically follow the C-Jam Master and display an ACN icon at the lower right of the display.

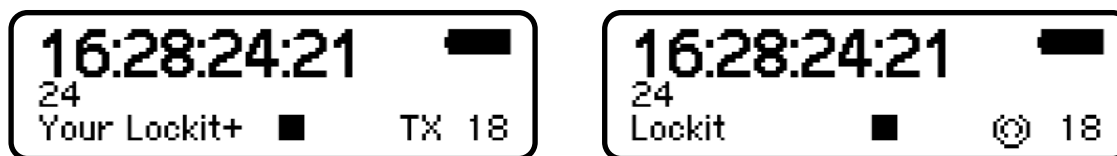
8.2 TX Mode (Transceiver Mode)

The TX Mode basically works like the C-Jam Mode, with the difference that the TX Master receives start/stop timecode and frame rate from an external source via LTC or Midi. Main use cases are playback situations (e.g. music video shootings), rec run setups (e.g. start/stop recording triggered by running timecode) or virtual production setups.

To start the unit as TX Master press and hold  **Red**, then tap  **Power**.

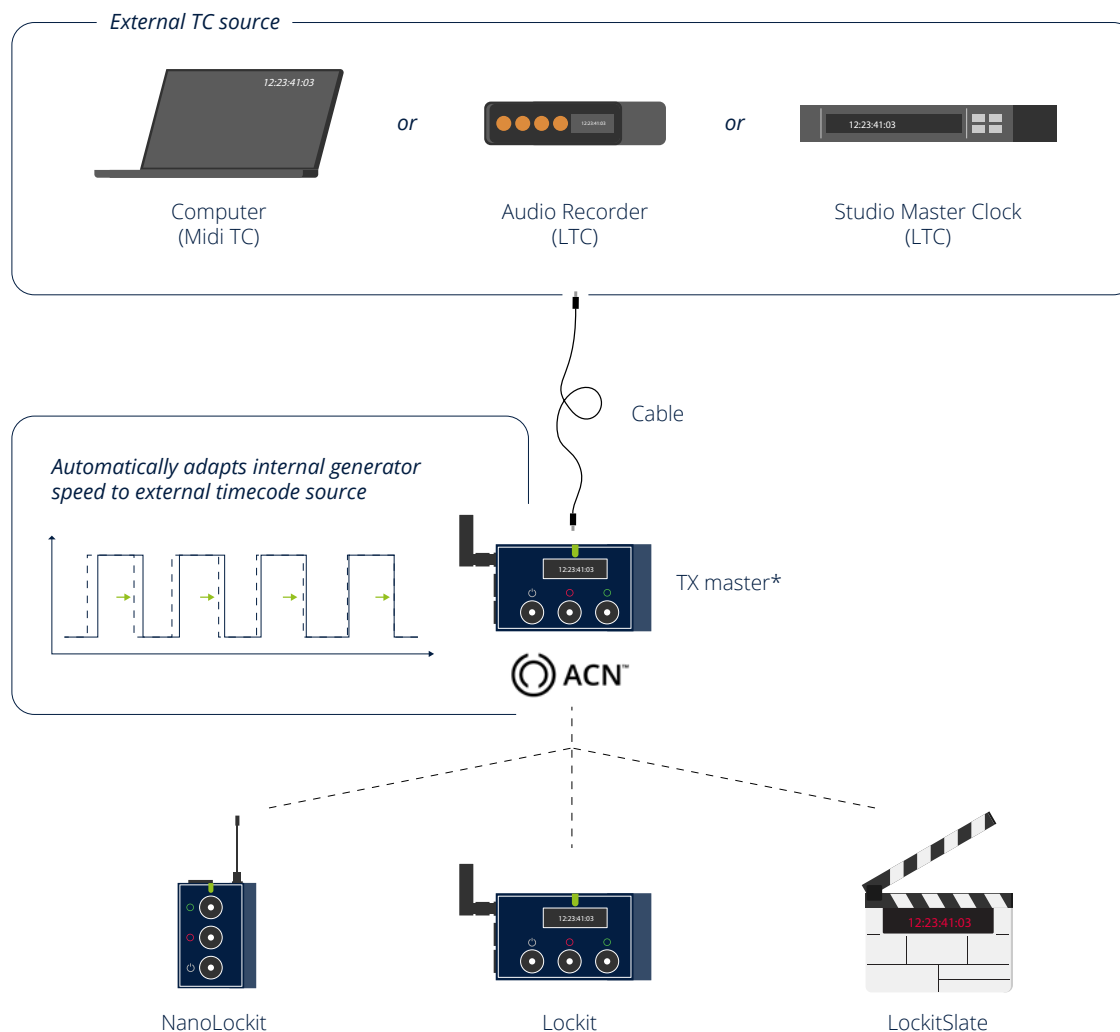
On the display you will see TX appear.

The TX master will automatically adapt its speed to the LTC-in timecode source and broadcast the external source's TC start and stop via ACN to all other Lockits. They will display an ACN icon at the lower right of the display.



As soon as the external source stops sending timecode to the TX Master, the timecode on all Lockits will freeze, and they will start flashing yellow. As soon as the timecode starts running again, they'll flash green again.

To make the TX Mode work, all Lockit Devices must run on the latest firmware (7.xx) which is available for Lockit, NanoLockit, LockitSlate Take2 and Lockit+.



* Can be any Lockit device started up with **Red** + **Power**.
We broadcast Start, Stop and Freeze Frame through ACN.

Pro tip for VFX, Volume, 3D setup and projects with high demand of genlock accuracy:

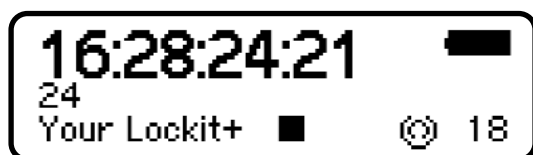
We recommended to project tune the ACN devices once. The Project Tune feature is available within the ACN Radar of the Lockit+.

Find more information here:

[Chapter 10.2 ACN settings](#)

8.3 ACN Receiving Mode

All Lockit devices that are jammed via a C-Jam or TX Master automatically switch to ACN Receiver Mode, indicated by the ACN logo in the lower right of the display.



Lockit devices in ACN Receiving Mode constantly follow the current C-Jam or TX Master.

To power up just long-press  **Power**.

Lockit devices that are powered up at a later point of time will automatically switch to ACN Receiver Mode after having received a jam via ACN. Their timecode and frame rate will be set accordingly.

8.4 Single Jam Mode

In Single-Jam Mode you can send a one-time pulse through the ACN to sync all Lockit devices. From then on, each Lockit continues to run autonomously.

This is perfectly fine for most occasions, as our Lockit devices are highly accurate and drift less than a frame within 24 hours.

To power up just long-press  **Power**.

All Lockit devices in this mode can send and receive a Single Jam. Choose one of your Lockits and press  **Green** for 3 seconds until the green LED lights up twice.

This way timecode and frame rate gets broadcasted to the other Lockit boxes in the same ACN channel.

Note: Once a Lockit device is turned off the timecode generator stops. After turning on again you must perform the Single Jam again.

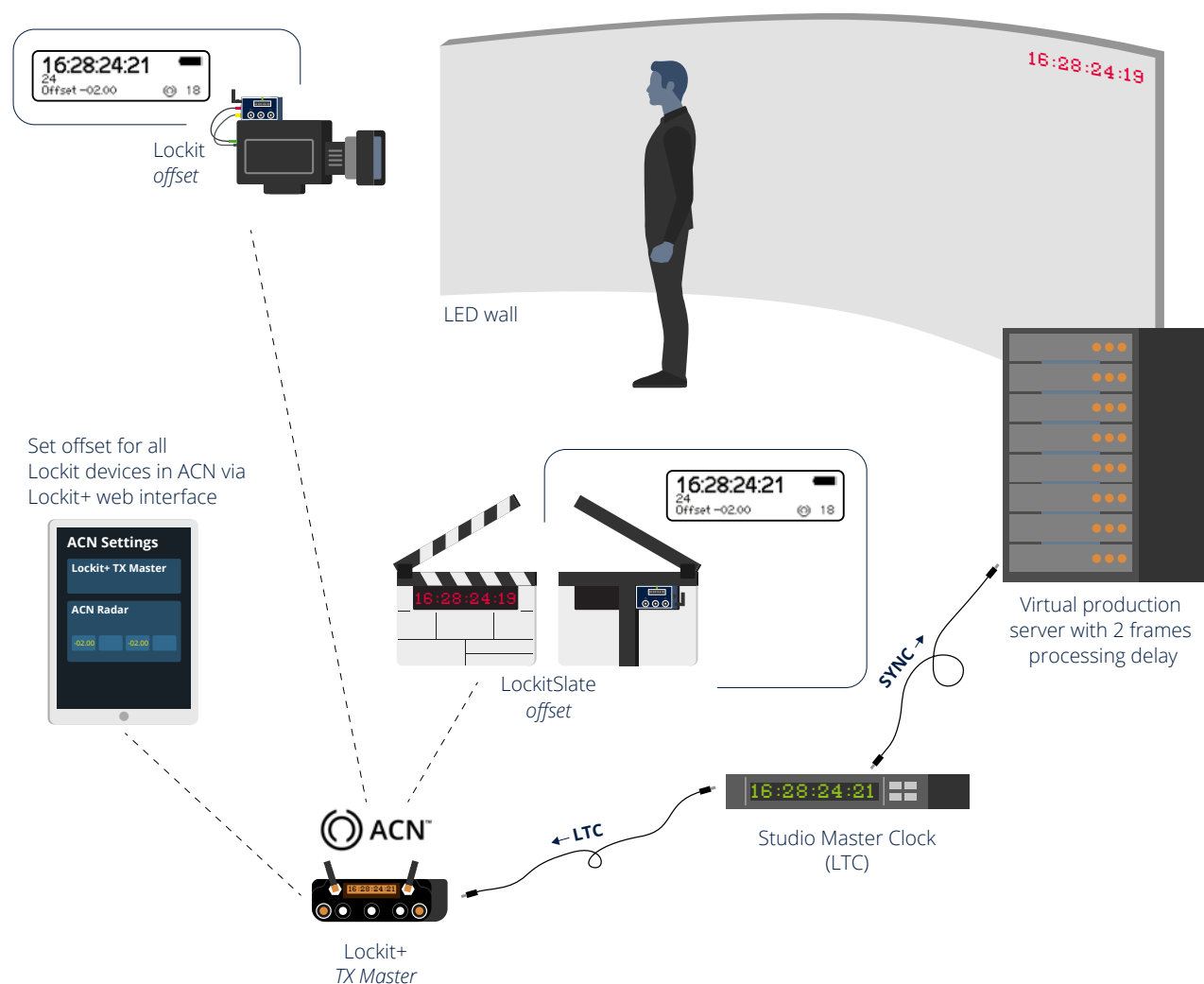
That's why we recommend C-Jam Mode over Single Jam Mode, as it completely eliminates drift and is more convenient to use.

9. Special: Wireless TC & Sync Offset

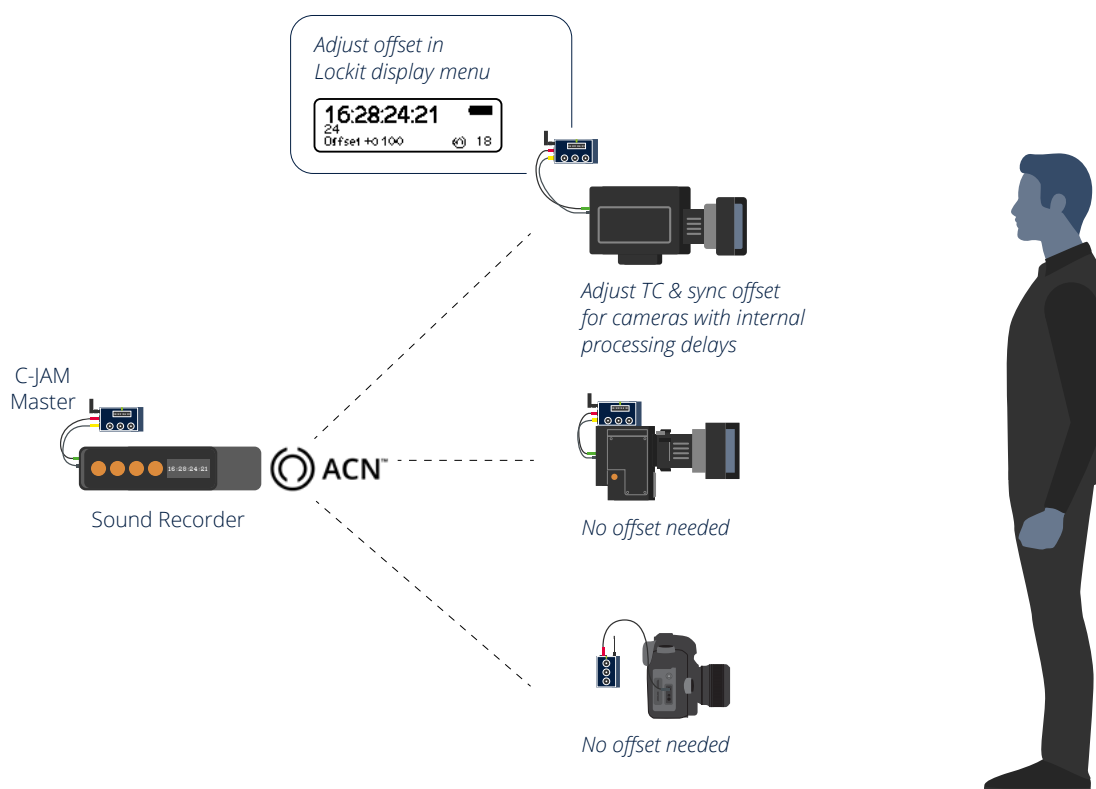
This setting will offset timecode and sync on all outputs and the LockitSlate's timecode display. The OLED will still show the current running timecode with an indication of the offset value.

This allows for compensation of frame processing delay on video walls, cameras and further 3rd party equipment.

Use Case 1: How to compensate processing delays in virtual production



Use Case 2: Adjust internal processing delays of cameras - classic setup



10. Access the Web Interface

The built-in server spans a local WiFi, giving users browser-based access to all the Lockit+ features via mobile device or computer.

Per default the WiFi name and password are both **the serial number of your Lockit+.**

Once connected to the WiFi of your Lockit+, you can access the web interface by entering "10.0.0.1" or "**serialnumber.local**" in the address field of your browser (z.B. Chrome, Firefox, Safari, Edge ...)

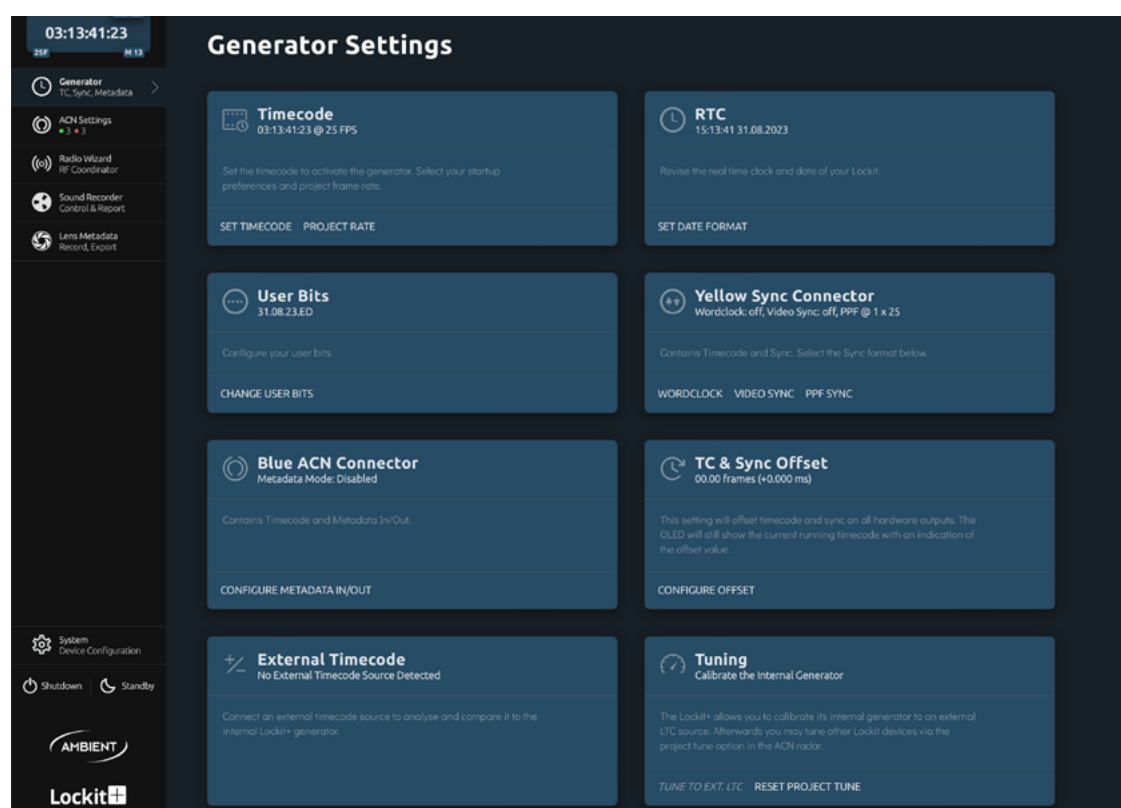
*If you forgot your WiFi password, you could reset the WiFi and LAN settings in the shutdown menu. Long-press Power, then press **Red** & **Green** simultaneously.*

11. Features of the Web Interface

11.1 TC & Sync Generator

Comprehensive configuration of the internal generator of the Lockit+

- Set the real-time clock (RTC) and the date format
- Start the timecode and set a startup preference
 - *RTC*
 - *RTC-12* *Note: RTC-12 automatically sets Start TC to RTC in the mornings or RTC-12 after 1pm.*
 - *manual*
- Set your project rate
 - *FPS: 23.98 / 24 / 25 / 29.97 / 29.97 DROP / 30 / 47.95 / 48 / 50 / 59.94 / 59.94 DROP / 60 FPS*



- **Change Userbits**

- *date with format ED/AD* *Note: ED/AD stands for european/american date format*
- *date*
- *date without year*
- *manual*

- **Configure Yellow Sync Connector**

- *Wordclock (off, 48 kHz, 96 kHz, 192 kHz)*
- *Video Sync (off, PsF, p, i : depending on selected project rate)*
- *PPF Sync (off, Multiplier 1x, 2x, 4x)*

- **Configure Blue ACN Connector**

- *Metadata In/Out*
 - Metadata device (RED DSMC2 or Sound Devices 6 or 7 series)
 - Lens data (Cooke/i³)
 - RED DSMC2 (Lockit+ is not running in C-Jam Mode)

- **TC & Sync Offset** (see [8. Special: Wireless TC & Sync Offset](#))

- *from -10.00 till +10.00 frames*

This setting will offset timecode and sync on all hardware outputs. The OLED will still show the current running timecode with an indication of the offset value. Use the TC & sync offset to adjust your recording equipment to a video wall.

11.2 ACN Settings

Monitor and manage all Lockits within the selected ACN channel.

- “Your Lockit+”
 - *Start C-Jam master*
 - *Select ACN channel*
 - *Rename unit*
- ACN Radar
 - *Check status of connected devices (online/offline)*
 - *Grid view and list view of ACN devices*
 - Online / offline
 - Rename units
 - Set offset *
 - Set sync *
 - Identify via LED flash
 - Battery status
 - Timecode aberration
 - *Project tune devices*

Good to Know: Re-calibrate your Lockit Setup

If you want to re-calibrate your Lockit Setup after some years of operation, you can perform a Project Tune (former feature of the discontinued ACC controller).

All Lockits within the selected ACN Channel will be tuned simultaneously. The process will take approx. 2 minutes during which the devices will rapidly blink red and green. Tune value will be overwritten by the factory value on a factory reset.

Attention: NEVER initiate a Project Tune during a shoot. There will be a hard reset of the sync pulse when the process is finished. This will potentially bring cameras in operation out of clock and compromise active recordings.

* Lockit, LockitSlate Take 2, Lockit+ with firmware 8.x

11.3 Stream Logs to Frame.io

The Lockit+ in C-Jam or TX mode collects all log and slate events of any Lockit device in the same ACN channel. Those logs can be sent live to your Frame.io C2C project. The logs will show up as markers in the timeline and mark the relevant moments in your video clips in Frame.io.

To use this feature your Lockit+ must be connected to the internet. You can either join a WiFi infrastructure with the Lockit+ built-in WiFi, or you can connect a USB-C or USB-A LAN adapter to your Lockit+ device.



This is how to connect your Lockit+ with a Frame.io project:

- Go to the web interface of your Lockit+
 - select menu item "Frame.io"
 - click on connect
 - copy the verification code
- Open another tab of your browser and access the Frame.io platform
 - go to C2C connections in the menu bar
 - go to context menu "..." (3 dots) on the right
 - click on "add new device"
 - confirm device is ready to connect
 - paste the verification code from above
 - confirm to finish
- Go back to your Lockit+ web interface to check the connection status to Frame.io.

Now the Lockit+ is enabled to send logs to Frame.io. Please assure that all Lockit devices run on the same ACN Channel.

So now, get any NanoLockit Logger and press ○ Red or ○ Green. Each log will be uploaded to Frame.io immediately.

Note that also a slate clap with a LockitSlate will be automatically uploaded as log to Frame.io as well.

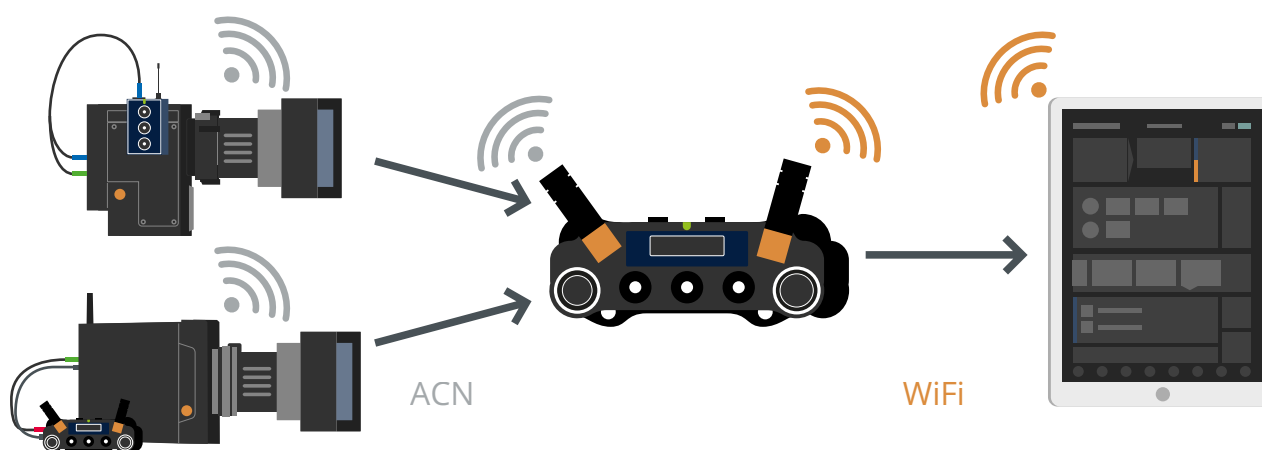
11.4 Connect to LockitScript App

To make camera metadata (e.g. clip name, lens, ISO etc.) automatically show up in the LockitScript App, the iPad must be connected to the Lockit+ in C-Jam Mode via WiFi.

Compatible cameras:

- ARRI CAP cameras
- RED DSMC2 cameras
- Sony Burano

The basic principle is that Lockit boxes on the cameras send the metadata via ACN to the Lockit+ in C-Jam Mode. From there, all collected metadata is sent via WiFi to the iPad with the LockitScript App.



Workflow for ARRI CAP cameras:

- Go to camera menu
→ **System** and activate **Camera Access Protocol (CAP)**.
- Let the CAP password at its default "arri" in menu
→ **System** → **CAP server password**
- Go to camera menu
→ **System** → **Network / WiFi** and activate **WiFi**.
Choose client to connect to the Lockit+ WiFi.
- Now the ARRI camera is enabled to send clip metadata to the LockitScript app via the Lockit+.
- Required timecode cable:
TC-IO (A80497) or TC-IO-RA (A80500) for Alexa mini

Workflow for RED DSMC2 cameras:

- Connect a NanoLockit (or Lockit / Lockit+) to the Sync and RCP port of each RED camera.
- Activate RCP serial in the camera settings.
- Now the RED camera is enabled to clip metadata via NanoLockit to the Lockit+, which will forward the metadata to the LockitScript app.
- Required timecode cable ACN-TC-RCP (A80027)

Workflow for Sony Burano camera:

- In the camera menu go to **Network** → **Network setup** and enter a **Input Password** first (e.g. "sony1234")
- Afterwards you are enabled to choose **LAN Type Select** network settings. Choose **WLAN (ST Mode)** to join the Lockit+ WiFi.
- Go to **Network** → **ST Mode Settings**
- Enable **Camera Remote Control** and enter the network password of your Lockit+.
- Now the Sony Burano is enabled to send clip metadata to the LockitScript App via the Lockit+.
- Required timecode cable: LTC-OUT (A80287)

More Info: <https://ambient.de/en/lockitnetwork>

Quick Help: support@lockitnetwork.com

11.5 Stream & Record Lens Metadata (Cooke /i)

The Lockit+ stores key Cooke/i lens metadata frame-accurately in an open file format (supported protocol: Cooke/i3 - “i cubed”: please update to the latest Cooke firmware). You may record lens data on the internal web server or connect an USB stick for recording. To do so connect the metadata interface of the lens with the blue ACN connector of the Lockit+ with the ACN-CP cable (A80962).

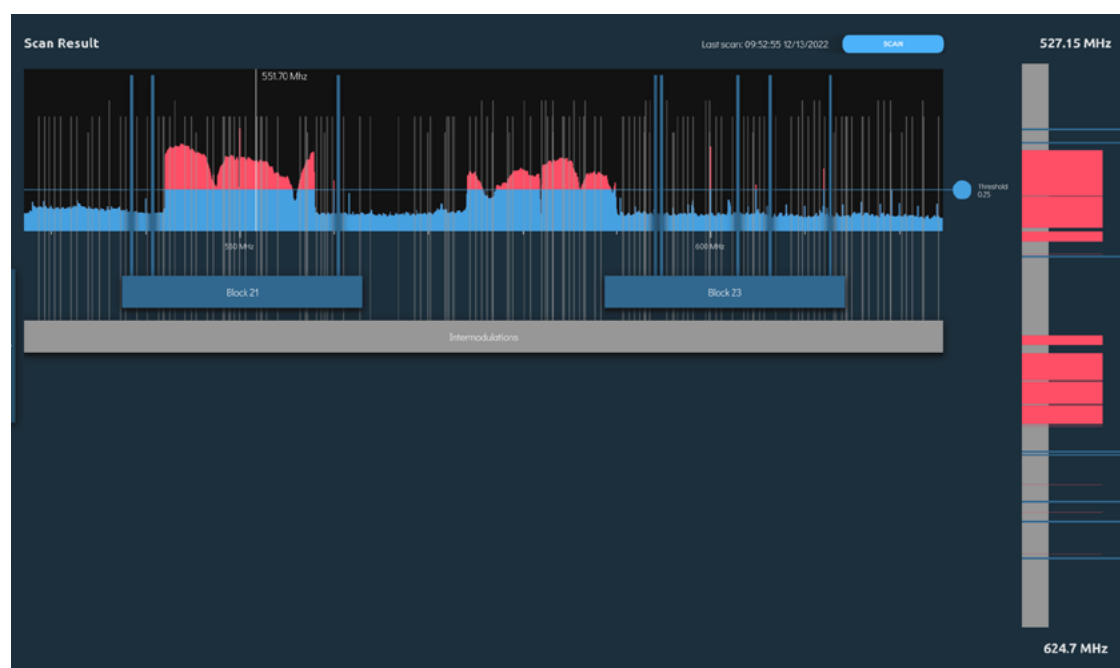
The Lockit+ also provides access to live lens data via TCP/IP:

After establishing a TCP connection to either port 3001 (for streaming YAML format) or port 3002 (for raw Cooke/i packet data), the Lockit+ should start sending TC-timestamped lens data as soon as a lens is connected.

11.6 RF Scanning (Radio Wizard)

Plug the separately available antenna ACN-RF (A80958) into the USB port and open the *Radio Wizard* tab in the Web Interface to perform a full frequency scan. The frequency range may be set from 100 MHz to 1500 MHz.

You will get concrete suggestions for available frequencies for your transmitters and receivers. Intermodulations caused by your wireless audios will also be displayed.



Open the *Radio Wizard* tab and create your first setup. **Setup** defines all the transmitters / receivers you currently use in your sound bag or sound cart.

You can use the same setup for the whole production or create separate setups for different locations. The latter makes sense if you want so safe radio network scans for a later point.

After creating your setup, you need to add systems. **System** means the product type of a transmitter set (e.g.: Lectrosonics Block 32 or Wisycom MCR54) Please insert the following parameters of your wireless system:

- min frequency (MHz)
- max frequency (MHz)
- step size (kHz)
- Window size (MHz, optional)
- Count of items

Add new system

Insert the parameters of the system and add it to your setup

Type Description

Lectrosonics Block 23

Min Frequency (MHz)

588.8

Max Frequency (MHz)

614.3

Step Size (kHz)

100

Window size (MHz, optional)

If your system is a multiband receiver, you can define the sliding window size here.

Count of Items

5

How many of these items do you want to add to your setup?

CANCEL

ADD SYSTEM

Within those systems you create different items. Each item will represent a concrete wireless Transmitter / Receiver.

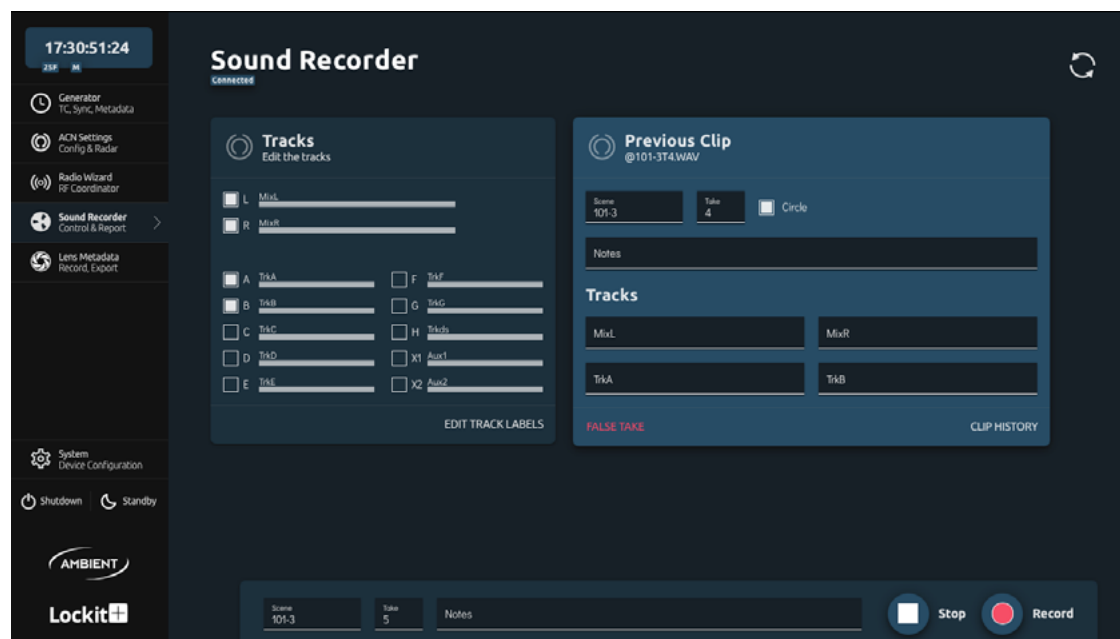
Afterwards click on **Scan & Coordinate** to run a scan in the range of your setup.

The range is automatically calculated from the lowest min frequency and the highest max frequency of all your created items / systems.

If you encounter any problems with a suggested frequency, there are different options for new coordination or a recoordination of a single item.

11.7 SD Remote Control (6-Series, 788t)

Use the web interface of the Lockit+ to remotely control your Sound Devices 6 or 7 series recorders. When configured correctly you can prepare and edit scene, take, notes, arm and rename tracks, remote roll your recorder, circle takes and, in the end, create comprehensive sound reports.



Note: the available options and behavior strictly depend on the protocol made available by Sound Devices. For example, reading meter status is only available for 788T.

For series 7 connect the cable MLC-CL (A80339) from the Blue ACN connector to the C.Link-in port. For series 6 connect the cable MLC-HID from the Blue ACN connector to the USB-A port.

Now you can enable the data connection to your Sound Devices Recorder by choosing "metadata device" in the Blue ACN Connector panel within the Generator menu.

Note: a separate timecode cable is needed to jam timecode to your Sound Devices recorder. Please set the timecode to "external" in the menu of your Sound Devices recorder.

11.8 System Settings

In the System Panel you see the serial number and firmware version of both of your Lockit+ and the built-in Lockit Module.

Please check <https://ambient.de/en/downloads> to get the latest firmware updates. To perform an update the Lockit+ needs to be externally powered.

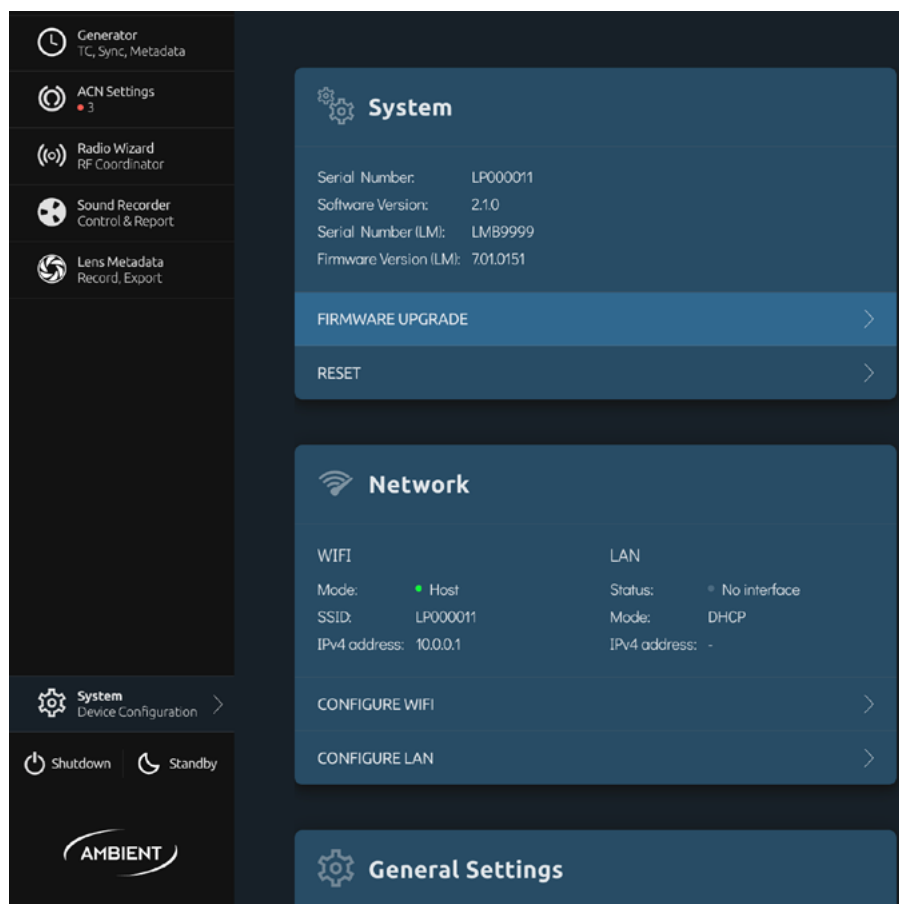
You can also configure the WiFi settings (host or client) and the LAN settings if a LAN-adaptor is connected to the Lockit+.

If you forgot your WiFi password, you could reset the WiFi and LAN settings in the shutdown menu. Long-Press Power, then press  **Red** &  **Green** simultaneously.

There is also an auto power option available. If enabled and the Lockit+ is externally powered, it will automatically start up.

12. Firmware Upgrade

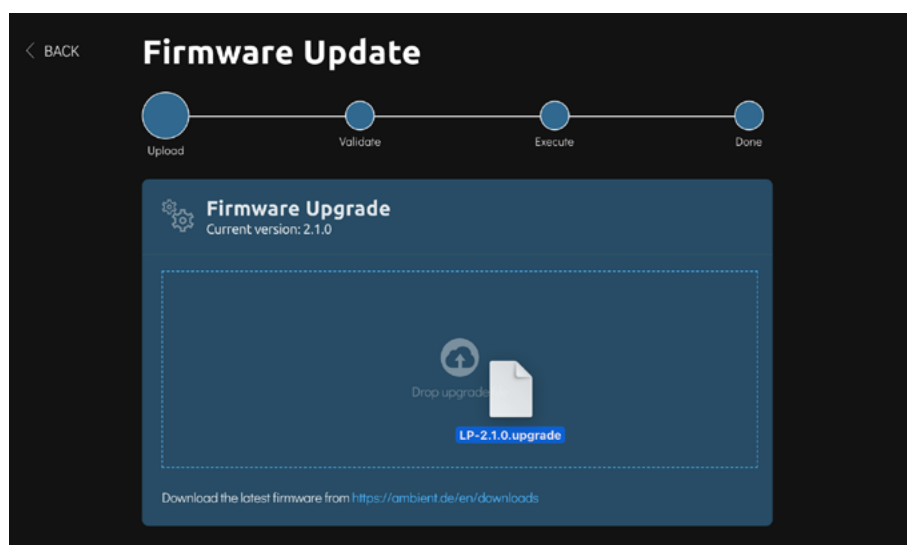
To update the firmware of the Lockit+ navigate to **System → Firmware Upgrade** in the web interface.



Drag and drop the latest firmware file (named "LP-X.X.X.upgrade") from your desktop.

Please note:

The Lockit+ needs to be externally powered to perform a firmware upgrade.



To download the latest firmware (.upgrade file) please visit <https://ambient.de/en/downloads>

13. Useful Links

- Timecode Cable Guide
<https://faq.ambient.de/hc/en-001/articles/4415083061650-Timecode-Cable-Guide>
- How to Sync Your Gear
<https://faq.ambient.de/hc/en-001/categories/18617816008978--How-to-sync-your-gear>
- ACN Technology
<https://ambient.de/en/acn-technology>
- Ambient FAQs
<https://faq.ambient.de/hc/en-001>
- LockitNetwork FAQs
<https://faq.lockitnetwork.com/hc/en-001>

14. Appendix

14.1 ACN Channel Frequencies

The ACN is designed to allow for friendly coexistence of different systems on the same channel. Still, equivalent ARRI remote focus equivalents listed to further help avoiding interferences. The default ACN Channel is 18.

ACN		ARRI EMIP WRS
Channel	Center Frequency (MHz)	Channel
11	2405	
12	2410	0
13	2415	1
14	2420	
15	2425	
16	2430	2
17	2435	3
18	2440	
19	2445	
20	2450	4
21	2455	5
22	2460	
23	2465	
24	2470	6
25	2475	7

Learn more on <https://ambient.de/en/acn-technology>

14.2 Connector Pinouts

Blue ACN Connector and Yellow Sync Connector

Accept LEMO FGG.0B.305 and compatible push-pull plugs

Connectors carry TC in and out as per industry standard, plus sync on one and ACN metadata on the other. They accept Lemo FGG.0B.305 compatible push-pull plugs.



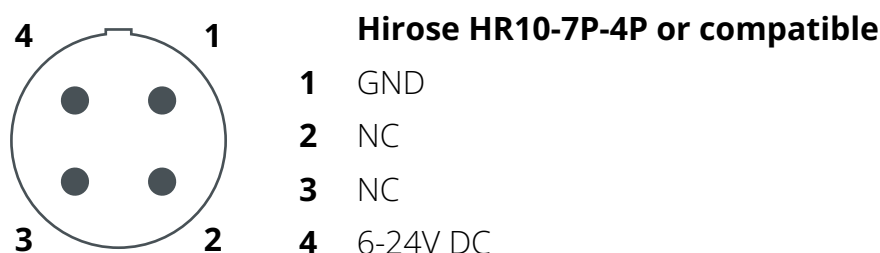
Trilevel Sync Out Impedance 75Ω / Dual Load: 38Ω

LTC Out Impedance 1kΩ

LTC In Impedance 15kΩ

Hirose

Primary DC port, connect your external power supply here.



Antennas

SMA type F, leave supplied antenna attached, only substitute with original replacements ANT-2.4-SMA-M(90)

Safety Instructions

For your own safety and trouble-free use, please carefully read through the instructions below. Always keep a copy of these instructions and hand them out with the unit to other users.

This unit is exclusively intended for indoor use. Keep it safe and away from water, rain and humidity and dry under all conditions, even when powered off. Clean gently with a slightly moistened cloth and never let water, detergents or liquids of any kind get into the unit as this will imply the risk of short circuits and electrical hazard.

Keep distant from sources of heat and never expose to direct sunlight. Admissible ambience temperature for operation and storage is from +5° to +50° Celsius. Power down before storing or shipping, detach external power sources, and, if applicable remove batteries.

Do not throw or expose to mechanical impact and keep it safe from hard vibrations.

Only use genuine accessories such as cables antennae etc. which have been included with the unit or supplied by an authorized dealer. Always observe integrity and the pertinent compatibility with all units connected to.

Powering from external sources is exclusively limited to the use of LPS sources in compliance to part 2.5 of EN 60950-1 with correct polarity, voltage range, and current rating. Disregarding recommended power requirements may damage the product or even risk explosion of the internal backup cell or inserted batteries.

Do not perform software updates in situations in which the integrity of mains supply cannot be granted such as thunderstorms and remove connections from and to all devices directly or in directly connected to mains.

When using the wireless connection, place it centrally and keep it distant from sources of possible interference such as microwaves or electrical devices with large metal surfaces. Only use the original external antenna directly and firmly attached to the socket. Extension or use of 3rd party accessories is not permissible.

Never open the unit. Inappropriate and unauthorized access will void the warranty and imply possible risk of harm to the user.

When disposing the unit, follow the legal requirements for recycling electronic equipment.

Warranty

Ambient GmbH & Co. KG warrants this product against defects in materials and workmanship for a period of ONE (1) year from date of original retail purchase. This is a non-transferable limited warranty that extends only to the original purchaser. Ambient Recording GmbH & Co. KG will repair or replace the product at its discretion after evaluation at no charge. Warranty claims due to severe service conditions will be addressed on an individual basis.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE. Ambient GmbH & Co. KG DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Ambient GmbH & Co. KG IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY.

Because some jurisdictions do not permit the exclusion or limitations set forth above, they may not apply in all cases.

For all service, including warranty repair, please send the product, along with proof of purchase date to your retailer, or, if not applicable, to:

Ambient Recording GmbH & Co. KG
Schleissheimer Str. 181 C
DE – 80797 Muenchen, Germany

Please obtain a return authorization through the contact form on our website before sending in a unit.

<https://ambient.de/en/service>

Approvals

CE Conformity Statement: **Declaration of Conformity According to ISO/IEC Guide 22**

Manufacturer's Name:

Ambient GmbH & Co. KG

Manufacturer's Address:

Schleissheimer Str. 181 C, DE – 80797 Muenchen, Germany

declares that this product is in conformity with:

- EN 62368-1
- EN 300 328 V2.1.1
- EN 301 489-1 V1.9.2
- EN 301 489-3 V1.4.10

which is indicated and affirmed by the applied CE marking.

FCC Statement

The FCC requires that the following statements be included in this manual:

FCC § 15.19

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.

Canada CNR-Gen Section 7.1.3

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC § 15.21

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC § 15.105

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.

ICES-003

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.