AMBIENT RECORDING

experience quality.

Clockit Timecode
ACN-LS LockitSlate

Rev. 3

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1. Introduction

As all Ambient Clockit devices the LockitSlate provides a rock solid, highly accurate, temperature compensated time code generator.

The LockitSlate Display Module is built on the proven platform of the TinyLockit with added slate specific functions and features a new ultra-bright LED display. It is supplied with a durable polycarbonate slate board and polymer clapsticks with inlaid rhombs. The clapsticks are also available made of maple wood.

Except for a sync signal output, it comprises the full functionality of the Lockit and TinyLockit, including ACN (Ambient Clockit Network) support and transfer of the clapped time. These network capabilities also allow the LockitSlate to be a fully functional, generator buffered time code transceiver. This provides the stability of an Ambient Lockit Generator with the flexibility of a wireless TC system but without the fear of dropouts.
In addition, it also offers time code conversion between LTC and MTC and vice versa, so a playback time code can be displayed, an audio workstation synchronized and the display module is also suitable for studio use.

Some more great features have been implemented: it has a motion sensor so it flips the display when the slate is turned upside down for end slates, a sensor for ambient light so the brightness can automatically adjust, variable offset for the displayed time, a supercap so time is not lost on battery replacement for some minutes, and of course an enhanced reader that can display multiple or slow speeds and even backwards.

Super bright flash LEDs help to find slate point on the time line or seconds transitions on fame 00.

As known from the Lockit and TinyLockit, the user interface is easy and intuitive to use.
Due to its modular concept, the LockitSlate can be equipped with custom slate boards, or the display module can be used alone.

Thanks to the machined, pearl blasted and anodized aluminum body the LockitSlate can easily withstand the roughest production conditions.

2. Package Contents

- ACN-LS Time Code Slate including
- ACN-LD Lockit LED Display
- ACN-LCP Clapstick POM with inlaid rhombs
- ACN-LB polycarbonate board
- ANT-2.4-SMA-M90 Antenna SMA right angle
- Manual
- Board marker with velcro

3. Safety instructions

For your own safety and trouble-free use of your LockitSlate ACN-LS 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 circumstances 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 is from +5° to +50° Celsius.

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

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

Do not perform software updates in situations 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.

Only use intended batteries type Mignon AA with 1.5V. Watch correct polarity when inserting the batteries, instructions can be found in the manual and on the device itself. Disregard of handling may cause battery leakage or even risk of explosion.

To maintain secure electrical contact the batteries are loaded with high spring tension and can shoot out of the compartment if opened without attention. Always secure the outer battery contact and release slowly when accessing the compartment.

Proper recycling of used batteries might mandatory be instructed by local law. Please check for requirements and dispose at foreseen institutions. With regard to environment only dispose completely discharged batteries.

When powering from external sources remove the batteries. Pay attention to the use of LPS sources in compliance to part 2.5 of EN 60950-1.

When using the wireless connection of the LockitSlate ACN-LS place it centrally and keep it distant from sources of possible interference such as microwaves or electrical devices with large metal surfaces.

Use the original antenna directly attached to the socket. Extension or use of 3rd party accessories is not licit.

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.

CLEANING THE SLATE BOARD:

It is recommended to clean the polycarbonate slate board with alcohol, diluted soap water, window cleaner or similar.

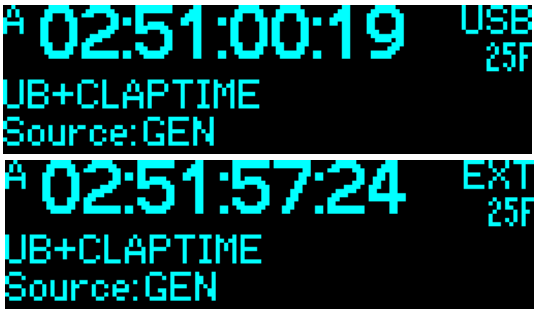
NEVER USE ACETONE!

Chemical Resistance	
Acids – concentrated	Poor
Acids – dilute	Good
Alcohols	Good
Alkalis	Good-Poor
Aromatic hydrocarbons	Poor
Greases & Oils	Good-fair
Halogenated Hydrocarbons	Good-poor
Halogens	Poor
Ketones	Poor

4. Powering

The ACN-LS can be powered:

- by 4 pcs. Type Mignon batteries (Alkaline, NiMH rechargeable or Li-Ion). Set correct battery type in configuration for reliable low voltage warning.
  No charging function for rechargeable batteries when powered from external.
  Pay attention to insert with correct polarity as shown on label, insert outer with “+” first, inner with “-“ first. Push down battery hinge and close slider.
  Or:
- 5 to 18 Volts DC via pin 4 of Lemo socket
  Or:
- 5 Volts DC via the USB socket.

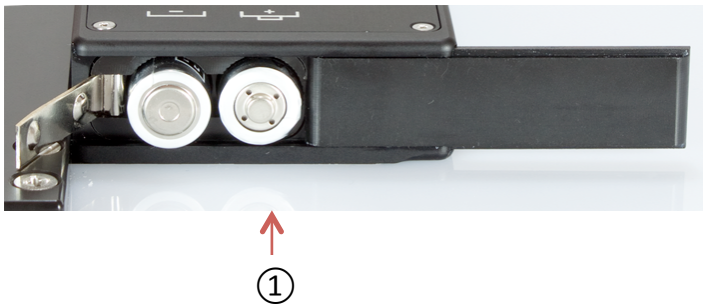


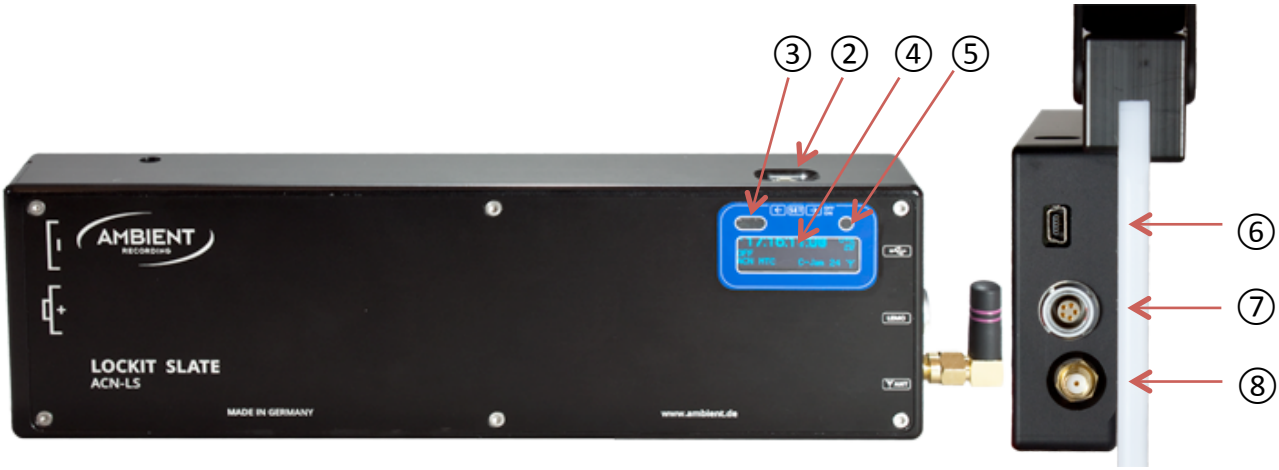
If powered from USB, USB is displayed in the upper right corner of the display instead of the battery symbol.

If powered from external on Lemo pin 4, EXT is displayed in the upper right corner of the display instead of the battery symbol.

Note: current time code is lost when power is preserved via the backup supercap for about 4 to 5 minutes, depending on setting for the OLED display. The LED display is turned off in backup power mode. After the supercap has run empty, the LockitSlate turns off and both, time code as well as stored clap time entries are lost. The settings are stored, the unit will power up with the last configuration used.

5. Description





① Battery compartment slider to be pushed down for access to batteries

② Configuration switch (further “config switch”, ↓ for pushing in, ↔ for toggle left/right)

③ IR transceiver, used to set and check the ACN-LS from the ACC501 controller

④ Display

⑤ Signal LEDs

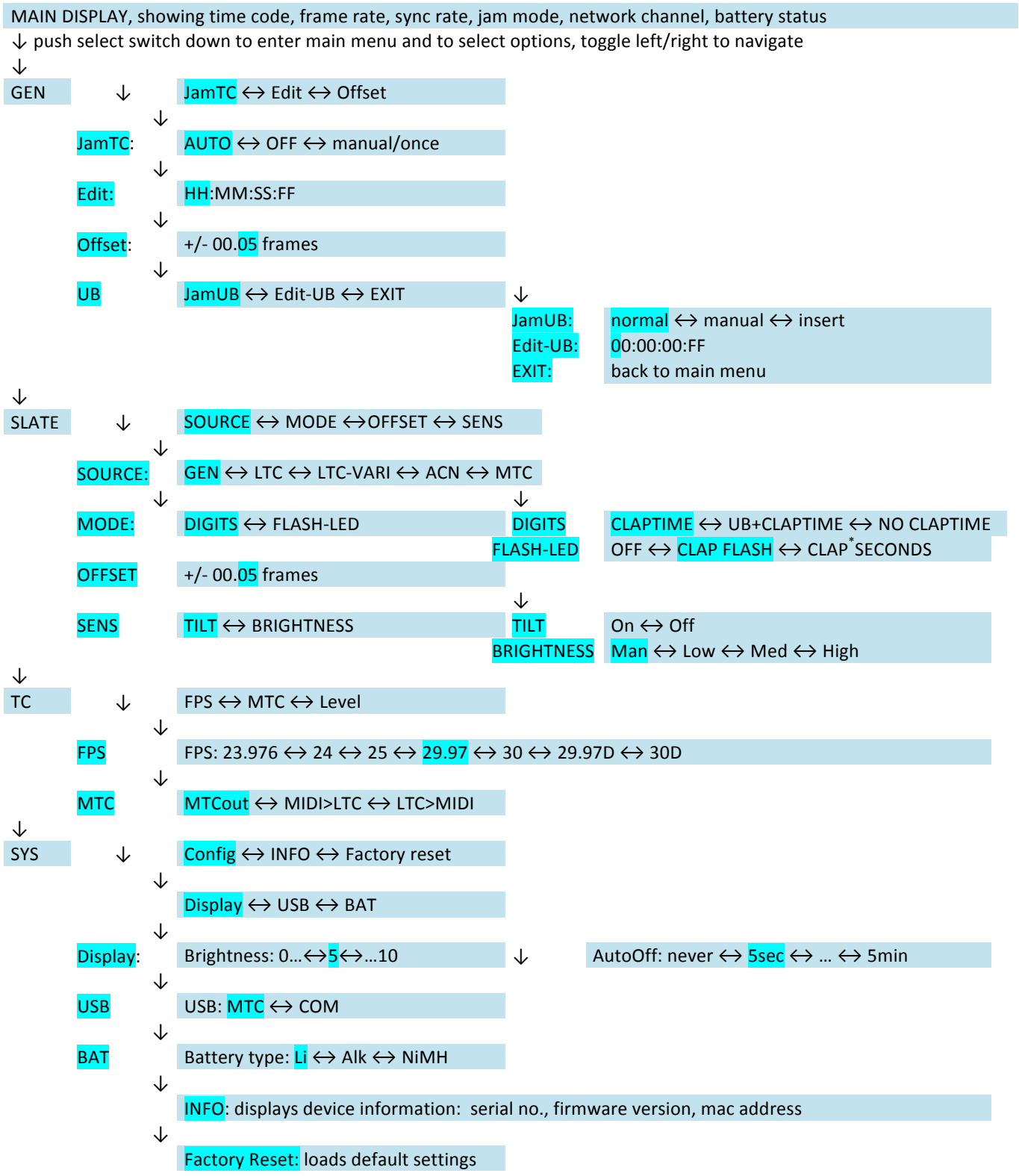
⑥ USB connector

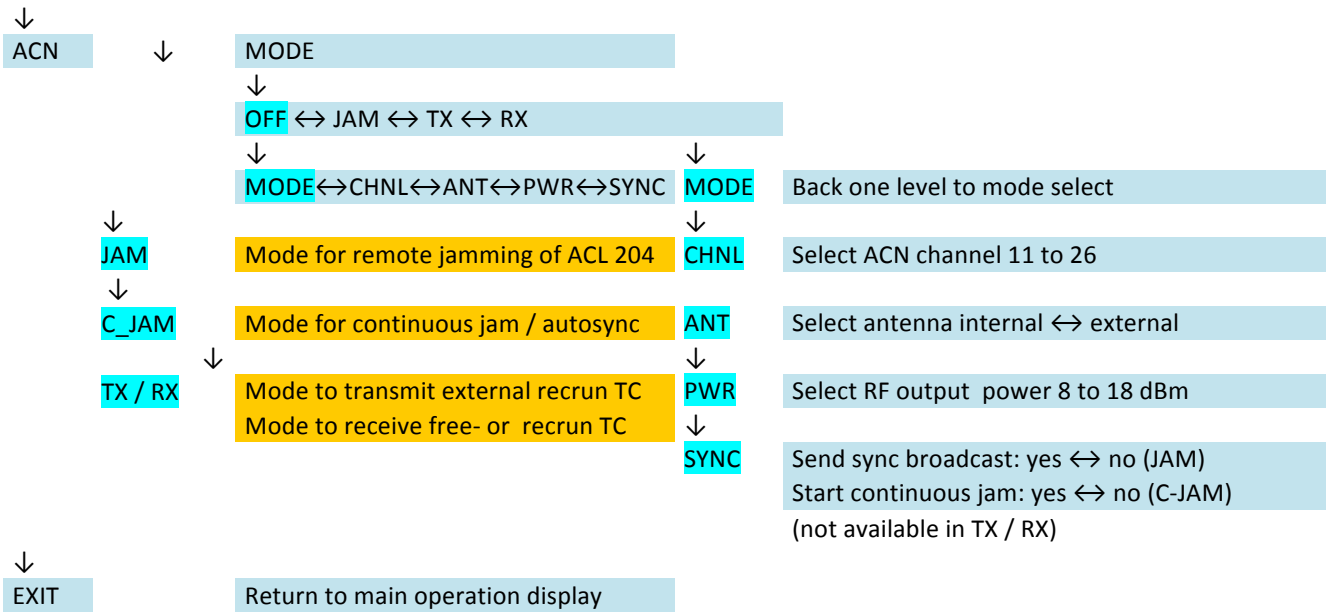
⑦ Lemo 5-pin socket: time code in, out / ascii / tune signal / DC-in

⑧ External antenna connector

6. Setup Menu Diagram

When entering a menu, the active parameter setting is highlighted.




ACN
MODE
OFF ↔ JAM ↔ TX ↔ RX
MODE↔CHNL↔ANT↔PWR↔SYNC
MODE
Back one level to mode select
JAM
Mode for remote jamming of ACL 204
CHNL
Select ACN channel 11 to 26
C_JAM
Mode for continuous jam / autosync
ANT
Select antenna internal ↔ external
TX / RX
Mode to transmit external recrun TC
Mode to receive free- or recrun TC
PWR
Select RF output power 8 to 18 dBm
SYNC
Send sync broadcast: yes ↔ no (JAM)
Start continuous jam: yes ↔ no (C-JAM)
(not available in TX / RX)
EXIT
Return to main operation display

7. Menu Description

POWER ON / OFF

To turn on the ACN-LS, press and hold the config switch for 4 seconds.

To turn off, press and hold the switch for 4 seconds. The display will show:

Press switch again to power down, toggle left to cancel.

LED DISPLAY BRIGHTNESS

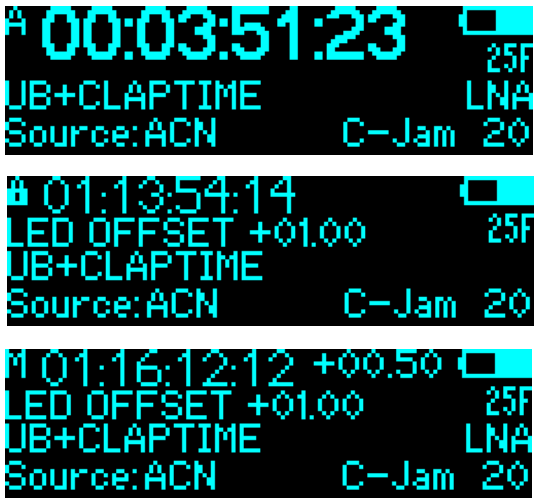
The brightness of the LED display can be regulated manually by toggling the config switch left or right without entering the menu at all. Only works when in the home screen.

Manual setting is not available if brightness is in "AUTO" mode.

Pushing the config switch either way for more than 3 seconds turns off the LEDs. Tipping the switch turns them on again.

The flash LEDs are set in menu SLATE > MODE > FLASH-LED

MAIN DISPLAY



The main display is the normal operation mode. It displays the most important status information. These are the time code momentarily running, source of the displayed time, time code frame rate, LED display offset, ACN status, channel and antenna amplifier if activated.

"A" in upper left corner indicates the jam mode "auto", the lock symbol indicates "off" – no external jamming available, "M" indicates manual / once.

"+00:00" top right beside the battery indicates time code offset for the output.

"COM" or "MTC" show the status of the USB port if USB is connected.

If the display is switched off (power save), pushing the config switch once will turn it on again without doing any changes. Also, a time code jam activates the display.

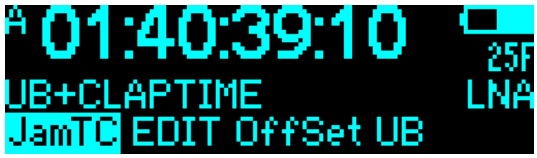
MAIN MENU

Pushing the config switch **for 1/2 second** enters the main menu screen. The main operation parameters are further displayed. In this screen, you can select the different settings by pushing the config switch. Navigate by toggling the config switch left or right.

Pushing the config switch when EXIT is highlighted exits to the main screen.

If no action is done, the unit will return to the main screen as well.

GEN MENU

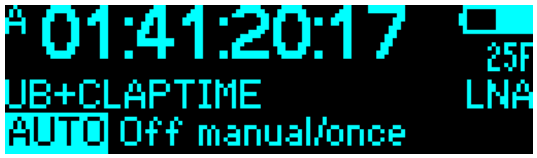


In the GENenrator menu, you can edit the jam mode, edit the time and set an offset of the time code output against the jammed time.

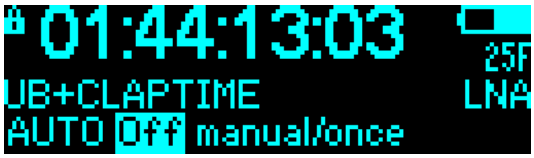
Under UB, you can display and manage user bits.

GEN > JamTC

In the JamTC settings, you can select from different jam behaviors:Navigate toggling left/right, push to select.



"AUTO" – the ACN-LS will behave as used to from the former Lockit boxes. It will jam once time code is detected, but not re-jam while time code is continuously present. As long as time code is present, the "A" mark changes to  indicating that the unit is not ready to re-jam. If the time code is disconnected for 3 or more seconds, the "A" reappears to indicate that the unit will jam again once time code is received.



"OFF" – the ACN-LS does not jam to external time code. This setting is useful if you set the unit manually and not to be jammed by incoming time code.

The  in top left corner shows that the input is locked.

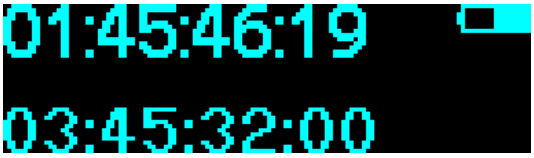
"manual/once" – the ACN-LS jams once to external time code, but then will not jam again but lock the jam port. Once jammed, the "M" indicator changes to  signaling that the unit cannot be jammed from outside. This setting is useful if you want the unit to be jammed from external time code but then not to be changed by incoming signal anymore. This mode is recommended should a LockitSlate be used to re-jam cameras in intervals using a bi-directional time code cable. Some cameras, like the ARRI Alexa,

put out time code permanently even in “ext. TC” mode, which leads to resetting the ACN-LS if in “AUTO” mode.

To reactivate the jam port, just push the config switch repeatedly going >GEN>JamTC>manual/once> and exit. The “M” indicator appears again, the unit is ready to be jammed once again.

CAUTION! Resetting the generator will restart the signal, doing this while recording can result in a corrupted file.

GEN>EDIT



In this screen, you can edit a time code value manually. Decrease or increase by toggling left/right. Holding left/right is fast backward/ forward. Push to select and jump to next.

Pushing the config switch while on the frames position sets the time. To avoid inadvertently changing the time code, you will be asked:

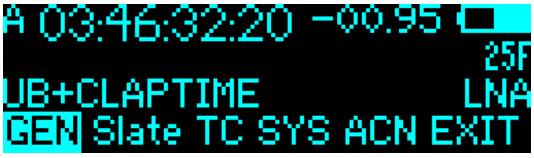
Pushing the config switch while “old” is highlighted discards the changes and returns to the main menu.

Pushing the config switch while “new” is highlighted will set the generator to the selected value.

CAUTION! Resetting the generator will restart the signal, doing this while recording can result in a corrupted file.

GEN>OFFSET

An offset can be entered between the jammed time code and the time code on the output of the ACN-LS. Use this to compensate the processing delay that some file base cameras produce.



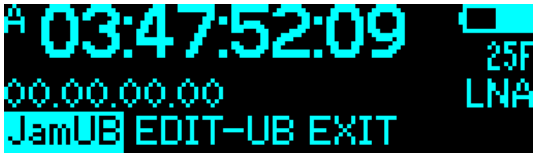
If offset is enabled, it will be displayed in the main screen. This shifts only the time code, the sync signal stays locked to the frame start of the jammed time code running in background.

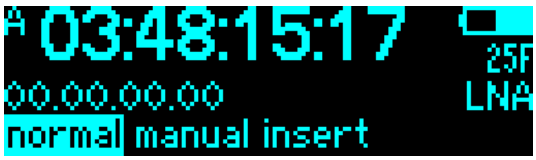
The offset has a range of +/- 10 frames in 0.05 frames steps (equals 2 ms at 25 fps).

GEN > UB

In the GEN > user bit menu, the user bits are being displayed. The user bits can be edited manually, and the jam behavior managed.

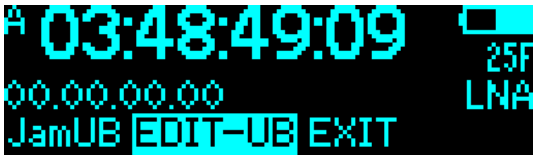
JamUB

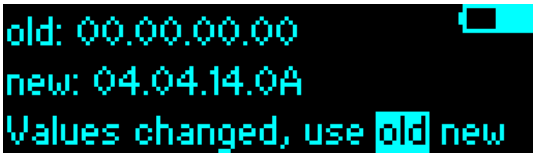




Under JamUB, the jamming behavior is managed:
normal: the user bits are being taken from external time code
manual: the user bits are not being overwritten by external time code. This mode is to be used if you want a custom entry, like date and camera Id for instance.
insert: user bits can be inserted "on the fly". Note: if the source time code was unplugged for more than 3 seconds and reconnected, the ACN-LS will re-jam. For just inserting changed user bits after interrupted time code, you must also set the ACN-LS to "jam once" or "off" in the jamTC menu.
If changed user bits from the master shall be taken over in C-JAM mode, "insert mode" must be selected.

Edit-UB





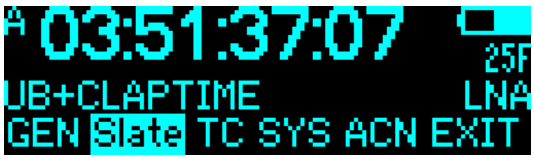
In Edit-UB, the user bits can be edited manually.

Decrease or increase by toggling left/right. Holding left/right is fast backward/ forward. Push to select value, curser jumps to next digit.
After finishing, selecting the new value needs to be confirmed – "use new", or the menu can be left by cancelling – "use old".

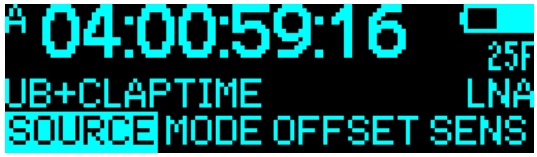
EXIT

As the user bits are only displayed in this menu, we added a way to exit without any changes quickly.

SLATE MENU



The SLATE menu lets you set all slate specific feature of the LockitSlate, such as source of the displayed time code, what happens if the clapsticks are closed, LED time offset, and functions of the sensors.



SOURCE selects what is displayed on the front LEDs.

GEN: the internal generator's time code is displayed.

ACN: selecting ACN enters the ACN menu. Depending of what is selected here, source ACN can be:

- the internal generator jammed through ACN in JAM mode,
- the internal generator slaved to ACN in C-JAM mode,
- a time code transmitter of LTC present on the input in record run mode if TX is selected,
- a receiver of for time code transmitted by another ACN enabled device in TX mode if RX is selected.

LTC: this displays time code present on the Lemo socket. It is a convert mode, i.e. the internal generator is jammed and running, permanently slaved to the external time code. At the same time, the time code is put out as MTC via USB. The USB Port is changed to Audio/Midi device.

MTC: this displays midi time code (MTC) present on USB. It is a convert mode, i.e. the internal generator is jammed and running, permanently slaved to the external time code. The USB Port is changed to Audio/Midi device. The time code is sent out on the Lemo socket as LTC.

LTC-VARI: this displays time code present on the Lemo socket. Slow or multiple speeds and time code running backwards is recognized, but of course also normal speed time code.
The generator keeps on running in background to be able to send time stamped messages into the ACN. This generator time code is present as LTC on the Lemo socket and MTC over USB.

NOTE: If setting back to source GEN while external time code is still connected, the generator will be jammed!

MODE: settings for the behavior of the digits on closing the sticks and of the flash LEDs.

Digits: at this time there are three different display modes.
(defaults, unless flash LEDs are configured differently)

UB+CLAPTIME: 3 frames flash LED + clapped time > 2 seconds user bits > 10 seconds clapped time > off after 20 seconds.

CLAPTIME (default): 3 frames flash LED + clapped time > 10 seconds clapped time > off after 20 seconds.

NO CLAPTIME: 3 frames flash LED + clapped time > 10 seconds running time code > off

For the Flash LEDs, there are three different behaviors: CLAPFLASH lights up the flash LEDS for 3 frames when the sticks are closed.

CLAP+SECONDS: lashes on frame 00 and for 3 frames when sticks are closed.

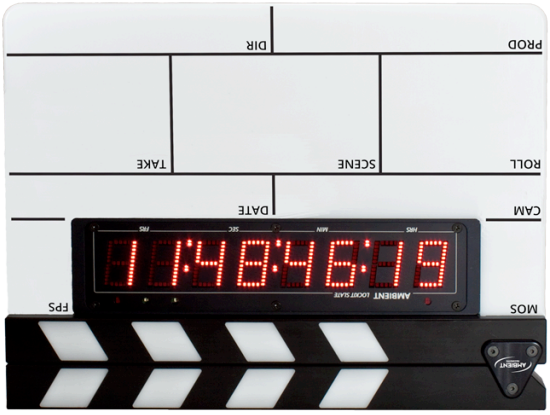
OFF: deactivates the flash LEDs

OFFSET: Sets the offset for the time code displayed on LED only. The small flashing LED and the bright flash LEDs indicate frame 00 and wander with the offset. Negative or positive offsets can be set in 0.05 frames steps.

The offset is displayed in the home screen, and the small red LED will flash between the green LED every 4th second on frame 12 so the camera filming the slate sees there is an offset.

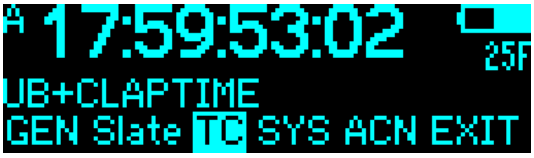
SENS: Settings for the tilt and ambient light sensors:

TILT: activates the tilt sensor. If on, the LED digits are flipped upside down when the slate is turned over.



BRIGHTNESS: Man activates the manual adjustment of LED brightness via the toggle switch.
Low Med High activate the ambient light sensor on the front side. This adapts the brightness to the light intensity from front. Low / Med / High are different profiles for relation of LED brightness to measured light.

TC MENU



Enter the TC menu to adjust the time code frame rate, MIDI time code (MTC) functions and time code output level for pin 5 Lemo.

TC > FPS

Select FPS for adjusting the frame rate. Adjust by toggling the config switch left/right, push to select new frame rate:
Available rates: **23.976, 24, 25, 29.97, 30, 29.97D, 30D fps (D = drop frame)**
If settings are changed, confirmation is required:
Pushing the config switch while "old" is highlighted, discards the changes and returns to the main menu.
Pushing the config switch while "new" is highlighted will set the time code signal to the selected rate and resets the time code if changing between integer and non-integer rates (a.k.a. PAL / NTSC Area),

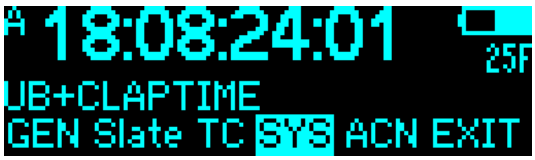
TC > MTC

Select MTC to control the Midi Time Code options:
MTCout: this is the default mode. The ACN-LS always puts out MTC, unless the USB port is set to COM (see SYS > Config > USB
The USB Socket activates USB whenever a 5 Volt USB power is recognized.
Activating below convert modes set the USB port to MTC.

MIDI>LTC: MTC received through USB will be converted into LTC and put out via Lemo socket, pin 5.

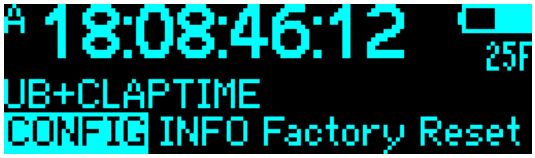
LTC>MIDI: LTC received on Lemo pin 2 will be converted and put out as MTC via USB.
The above convert modes are identical to the convert modes selected in the slate menu, just a different shortcut.

SYS MENU



The SYS menu serves to configure various parameters, The display behavior, USB port mode (USB: COM or MTC) and battery type are set. Push the config switch to enter.

SYS>CONFIG



Enter the configuration by pushing in the config switch

Navigate to DISPLAY, USB or BAT, push the config switch to select.

SYS>CONFIG>DISPLAY

Adjust display brightness from 1 to 10 toggling the config switch left/right. Push in to select value.
The curser will jump to the Auto-off settings:
Select after what time the display shuts off after entering the main operation display.
Choices are:
Never – 5 seconds – 30 seconds – 1 minute – 5 minutes.
Select by toggling the config switch left/right. Push in to select value.

SYS>CONFIG>USB

Select the function of the USB connection:
MTC: this is the default, will be recognized as generic MIDI interface and deliver or receive time code as MIDI time code.
COM: select to communicate with computer, for updating software or transferring ACN data. This mode will appear as a HID in the control panel.
Select by toggling the config switch left/right. Push in to select mode.

SYS > CONFIG>BAT

Select battery type for correct voltage readout and low battery warning / flashing.

Li = Lithium-Ion (non-rechargeable batteries!) 1,5V, Alk = alkaline batteries 1,5V, NiMH = Nickel-Metal-Hydrid rechargeable batteries 1.2 V

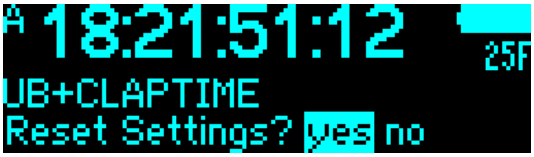
SYS > INFO

Select INFO to display information about the ACN-LS:

Serial Number
Main firmware version

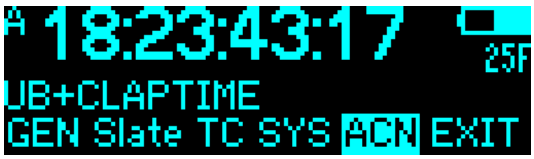
Mac address

SYS > Factory Reset

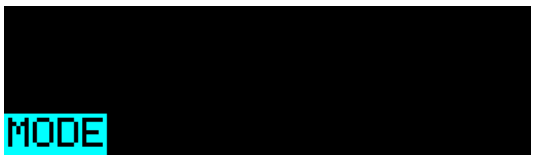


This restores factory defaults: Sync is off, TC is 25 fps, ACN is off, display brightness at 3, display auto-off 30 sec., TC-offset reset, USB to MTC.
Time code is not lost, battery type not changed, tune value unaltered.

ACN MENU



The ACN menu accesses the **A**mbient **C**lockit **N**etwork configuration.
To enable ACN, select the MODE
In the release version of the ACN-LS, three different network communication modes are available:
JAM,C-JAM, TX / RX



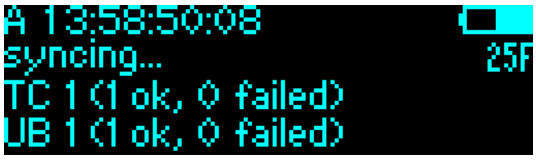
OFF: no wireless functions enabled.

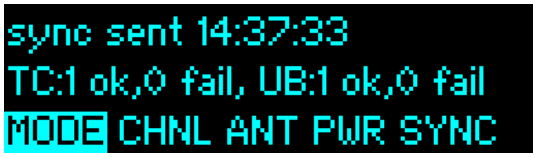
ACN > JAM

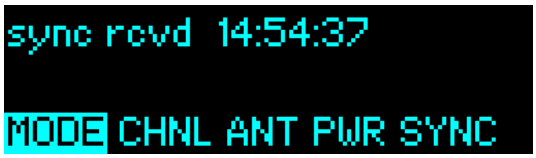
The JAM mode allows to send a sync command to other ACN-LS or ACL 204 devices or receive sync command from them. This serves to remotely sync all units on the set. First, the menu asks to select the wireless channel.
The CHNL setting allows you to select between 16 network channels within the 2.4 GHz range.
The channel can be changed later.

After setting this, in ANT the low noise amplifier LNA for the receiver may be enabled. The LNA draws power, so it is recommended only should the reception of data be insufficient without. If enabled, LNA is indicated on the bottom right of the display.

PWR lets you increase the output power of the transmitter. Default is 8 dBm, up to 18 dBm is possible. Entering a PIN code required.







Selecting SYNC opens the screen for sending a sync command to all ACN-LS or ACL 204 in reach which are on the same channel and in JAM mode. Default is on no, toggle to yes and push to enter.
After sending out the sync command including time code and user bit, the other units reply and the number of units which replied and were successfully synced is displayed.
A device that received a sync command will memorize when the sync command was received. The transmitting device also memorizes the event. The information is displayed when ACN is selected from the main menu.

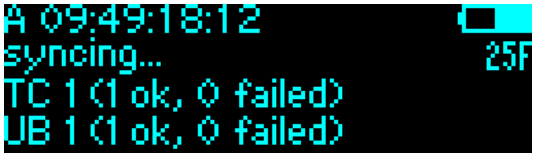
There may be various reasons for a "sync failed" returned:
For time code:

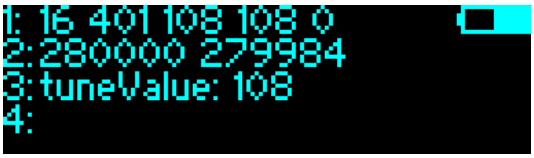
- If the frame rates of sending and receiving device do not match (integer vs. non-integer frame rates like 25 fps and 29.97 fps, the sync command is rejected.
- If "OFF" is selected in the GEN>JamTC settings.
- If "manual/once" is selected in the GEN>JamTC settings and the device has already been jammed before.

For user bits:

- if the GEN>UB>JamUB is set to "manual"

ACN > C- JAM

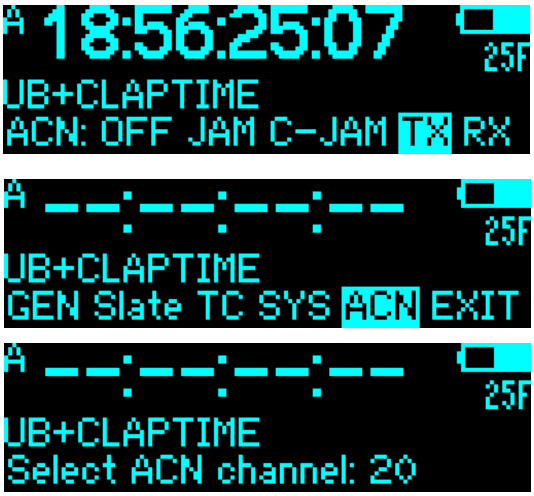




C-JAM is a continuous jam mode. Set up channel, antenna, RF power and LNA as above in JAM mode. When done, select SYNC. In the next display, the continuous jam is initiated. The device used for sending the continuous jam command is master. After sending the continuous jam command, the jam success or fail of other devices ACL 204 or ACN-LS is displayed.
Condition for fail is as in JAM mode, see above.
Any ACL 204 or ACN-LS in range that has not been synced or has an offset bigger than 0.5 seconds will be jammed. After the initial c-jam, the master sends a sync command every five seconds. Slave units display "sync rcvd" and their LED goes to solid green for a second. If synching fails due to incompatible frame rates, the LED goes red and "sync failed" will be displayed.
The slave Lockits now compare their own time with the regularly received time stamps and will adjust their tune value to stay closely in sync with the master, the system latency is down to half a video line (SD) if all Lockits are well in tune to each other initially. The latency in µs, measured time in seconds since start of c-jam, current tune value, proposed tune value are displayed in an "expert view" window, accessed by selecting SYS>INFO and then pushing the toggle switch to right (line 1). Line 2 is debug info, line 3 used tune value.

In this mode, a unit that was slave and has been power cycled (for instance for changing batteries) will automatically re-sync when booted. The master unit will be in c-jam mode, but not send sync signals after reboot. Should it become necessary to reboot the master, a former slave may be used to initiate the c-jam and become master. This way, the set time code is maintained. It is recommended though to stay with one master and to re-sync the set after power cycling, this way it can be avoided to have more than one master on location which may lead to unpredictable errors.

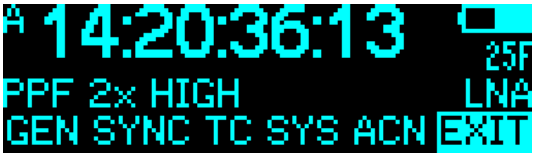
ACN > TX / RX



TX is a wireless transmission of external time code present on the input (Lemo socket pin2). This is intended for transmitting a record-run time code to another ACN-LS, ACN-TL or ACL 204 which is in RX mode. Once progressing time code is detected, the ACN-LS jams to it and sends a jam command to the slaves.
When external time code stops, either in form of a static time code or if the signal is off for two seconds, a stop command is sent to the slaves.
If static time code value is recognized, as put out by a video camera or Sound Devices recorder, the time code is stopped and a static time code is put out on the time code output of the slaves as well as on the output of the unit that is in TX.
This feature makes it possible to remotely start and stop recording of audio recorders, cameras and video recorders which support being triggered by time code.
In RX mode, the slate is a time code receiver and displays time code sent from nothe ACN device in TX mode

As in JAM mode, the network channel needs to be set first when coming from OFF condition but can be changed any time. Other available settings are activating LNA and setting the output power of the wireless module. PIN is required for higher output levels.

EXIT



Exits to the main operation screen.

8. LED Indications

on OLED side:

As used to from former devices of the Cockit Time Code family, the ACN-LS has a red and a green flashing LED to display operation and battery status:

0 1 2 3 4 seconds:

● ● ● ● ● red flashing in 1 second intervals: running, but not jammed or set.

● ● ● ● ● green flashing in 1 second intervals: running, jammed or set manually.

This is the normal operation mode.

● ●● ●● red double flash every 2seconds: battery low, not jammed or set.

● ●● ●● green double flash every 2seconds: battery low, jammed or set.

● ●●● ● ●●● combination of not sync and low battery, not set or jammed.

● ●●● ● ●●● combination of not sync and low battery, set or jammed.

● ● ● ● ● ● ● ● ● ● alternating colors during firmware update.

on LED Display side:

● ● ● ● ● green flashing in 1 second intervals: running, jammed or set manually

● ● ● ● ● ● green flashing in 1 second intervals with off-beat every 4 seconds indicates LED offset. In LTC-VARI the LED is **solid red** if no time code is present, **solid green** if time code recognized.

9. Firmware Update

New features, improvement and fixes for the ACN-LS will be available for download from our website:

http://www.ambient.de/en/products/ambient-recording/clockit-timecode/lockit-slate.html

The firmware update comes as a zipped package including the QT programming interface and the firmware file, and a Mac DMG
Windows®: Unzip the programming files. Connect the ACN-LS to a computer running a Microsoft Windows® operating system using a USB-A cable to Mini-USB B connector and run the updater. Press the “UPDATE” button. Wait until the message “update successful” appears.

Apple® MAC-OS: “unarchaive”, mount the DMG and run the updater. Press “UPDATE” and wait until the programming is finished.

Contact us for bug reports and suggestions through our contact form.

10. Physical specifications

Dimensions Display Module: (L / W / H): 210 x 63 x 28 mm

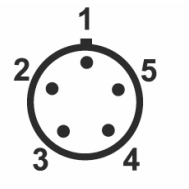
Dimension of slate board is as a „legal“ pad.

Weight Display Module: 0.404 Kg (no batteries)

Power consumption: 70 to 600 mA (6 Volts)

Connectors:

“Lemo”: Lemo series 0B 5-pin (matching connector FGG/JGG.0B.305.CLADxx)



pin 1: ground
pin 2: LTC IN
pin 3: ASCII IN / OUT
pin 4: Tune reference 1.92 MHz out / DC-IN 6 to 18 Volts
pin 5: LTC OUT

Antenna: SMA-F

USB: Mini-B

11. Warranty & Approvals

Warranty

Ambient Recording GmbH warrants the LockitSlate ACN-LS synchronizer against defects in materials and workmanship for a period of ONE (1) year from date of original retail purchase. This is a non-transferable warranty that extends only to the original purchaser. Ambient Recording GmbH will repair or replace the product at its discretion 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 RECORDING GMBH DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. AMBIENT RECORDING GMBH 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 ACN-LS, along with proof of purchase date to your retailer, or, if not applicable, to:

Ambient Recording GmbH
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.

CE Conformity Statement:

Declaration of Conformity
According to ISO/IEC Guide 22
Manufacturer's Name: Ambient Recording GmbH
Manufacturer's Address: Schleissheimer Str. 181 C, DE – 80797 Muenchen, Germany

declares that the product: ACN-LS LockitSlate
is in conformity with:
- EN 60950-1:2006 + A11:2009+A1:2010+A12:2011+AC:2011
- EN 300 440-1 V1.6.1
- EN 300 440-2 V1.4.1
- EN 301 489-1 V1.9.2
- EN 301 489-3 V1.4.1

which is indicated and affirmed by the applied CE marking.

FC FCC Statement

The FCC requires that the following statements be included in this manual for ACN-LS:

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.

April 2014

Sebastian Fell

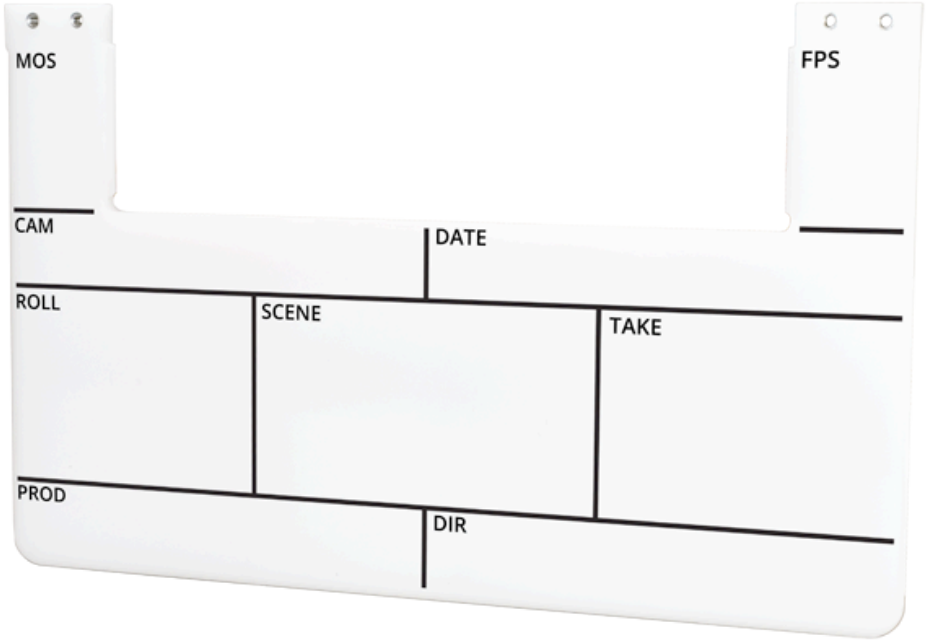
Ambient Recording GmbH

12.Recommended accessories

ACN-LCP - Clap sticks POM with inlaid rhombs

ACN-LCP - Clap sticks maple wood with inlaid rhombs

ACN-LB - Slate board polycarbonate



LTC-OUT Adapter cable Lemo Series 0B 5-pin to BNC

LTC-OUT/ Epic Adapter cable Lemo 5-pin to Lemo series 00 4-pin for use with RED Epic / Scarlet

TC-I/O Adapter cable Lemo 5-pin to Lemo 5-pin for use with ARRI Alexa

ANT-2.4-SMA-M Antenna straight

ANT-2.4-SMA-M90 Antenna right angle

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