The Practitioners Guide - Lynx Timecode Module Overview

This tutorial was designed as a quick reference only. It is strongly suggested that you read the Lynx manual.

Please note the following:

- Connections to the Lynx should be made with the power off.
- The blue labels on the front panel refer to the setup functions of the controls. They are refered to here in (parentheses).
- The *up* and *down* arrow keys are referred to here as <up> and <down>.

When instructed to *hold* a control, it must be pressed for about 1 second, as in the case of the (store) control.

Initialization:

1. Connect the transport to the 50 way "D" connector on the rear of the Lynx.

2. Connect the transport TC channel output to the "TC IN" jack on the rear of the Lynx.

3. Holding the "STORE" key on the front panel, turn the power switch on. The display should flash "AEg-20"

4. Use the (FORW), (BACK), <up> and <down> keys to select the correct transport software.

5. Tap the "STORE" key. The display will stop flashing.

6. Tap the (MENU) key. The display will flash "donE".

7. Tap the "STORE" key. The display will show "00:00:00:00".

8. Disconnect the cable from "TC IN". Play and rewind the transport. The display should increment and decrement and the red "TACH" LED should light. Reconnect "TC IN".

9. Play a tape striped with timecode. The green "LTC" LED should light and the display should increment. Play the tape for about 1 min. This will show the Lynx the relationship between timecode and tach. Stop the tape.

NOTE: Repeat steps 1 - 9 for all Lynx in the system.

10. Connect the 9 pin "D" "RS422" connectors together between all of the Lynx in the system.

11. This completes the initialization procedure. All settings are stored in battery-backed memory. When the power is turned off, all information is retained. To use the unit in an existing setup simply turn the power on. The Lynx will resume operation where it last left off.

The Display Select Key:

This key allows you to select which section of the Lynx you are talking with. These sections are:

LED Color	LED Label	Function
red	GEN	the timecode generator
grn	RDR	the timecode reader
yel	SYNCPT	the sync point register
yel	OFFSET	the offset register
red	OFSTERR	the offset error display

Setting The Display:

The number shown in the HR:MIN:SEC:FR display can be changed using the "SET/HOLD", <up>, <down>, and "CLR" keys as follows:

1. Select the desired register by tapping the "DSPL SEL" key until the desired "DSPL SEL" LED is illuminated. (Note that it is not logical to edit the "OFSTERR" register since it is only reporting a value.)

2. Tap the "SET/HOLD" key. The display will freeze, with the digits in the "FR" field flashing. These flashing digits are the "cursor". Tap the "SET/HOLD" key to move the cursor to the different fields.

3. Holding the "CLR" key will clear all fields.

4. Move the cursor to the desired field.

5. Tap the <up> and <down> keys to change the number in the cursor field to the desired value.

6. When the desired timecode number appears in the display it can be stored by holding the "STORE" key.

7. The display will now return to normal.

Negative Numbers:

In the "OFST" and "OFST ERR" positions, values can be either positive or negative since these displays indicate a relationship between the master and slave transport positions, not an actual timecode value.

Negative numbers are displayed with a flashing "-" (minus) sign in the tens of hours field.

A positive number in these displays indicates that the slave transport is ahead of the master the indicated amount, and a negative number indicates the slave is behind the master.

To enter a negative number in the display, hold "CLR" to clear the display. Then use the <down> key to subtract from 00:00:00:00.

Generating Timecode:

1. Tap the "DSPL SEL" key until the red "GEN" LED is lit.

2. Tap the "REF SRC" key until the green "INT XTL" LED is lit.

3. Tap the "CODE TYPE" key until the desired type is indicated.

NOTE: To find out what type of code is on your tapes, simply play them into the Lynx reader. It will automaticaly display the code type when the "DSPL SEL" is set to "RDR".

4. Follow the instructions in "Setting The Display" above to set the desired starting time.

5. Tap the "GEN ON" key. The generator will start from the time you set.

6. To "JAM SYNC" timecode, please consult the Lynx manual.

Synchronizing Without An Offset:

1. Load timecoded tape on to each of the transports. Position the tapes within 30 seconds of each other.

2. Tap the "TRAN MODE" key on each Lynx. The green "ON LINE" LED should light on each.

3. Tap the "MASTER" key on the desired Lynx. The red "MASTER" LED should light as well as the yellow "RS422" LED on all of the Lynx modules.

4. Play the master. All other transports in the system should play as well. Stop the Master. The system will automaticaly position each slave for optimum startup.

5. Play the master. The "RESOLVE" and then "LOCK" LEDs on each Lynx should light. This may take about 15 seconds the first time. Each succeeding lock should take 3 seconds or less. Exercise the system a few times to see that everything is working properly.

Reference Source:

The Lynx allows selection of four different reference sources. They are:

LED Color	**LED Label**	**Function**
grn	INT XTL	internal crystal
yel	EXT VID	external video
red	MAINS	AC line frequency
red	VSO	follow master

The reference source is selected on the module that is on line as the master. You should always use "INT XTL" except when using variable speed on the master, in which case you would use the "VSO" position. For video, digital audio, or film, you should consult the Lynx manual or a technician.

Synchronizing With An Offset:

Offset = Slave - Master

i.e.

Slave time 02:59:00:00

- Master time - 01:02:00:00

= Offset = 01:57:00:00

1. Calculate the slave offset values.

2. Tap the "DSPL SEL" key until the yellow "OFFSET" LED is lit.

3. Follow the instructions in "Setting The Display" above to set the desired offset value.

NOTE: The yellow "OFFSET" LED will remain constantly lit whenever a value other than 00:00:00:00 is stored in the register.

4. Tap the "TRAN MODE" key on all lynxes, select the master and test the lock. Repeat step 3 to trim the offset as necessary.

The Sync Point Register:

The Sync Point Register is used by the Lynx to automaticaly calculate an offset. It is very useful in setups which use multiple masters. When a master is selected, all slaves in the system compare their Sync Point to the master's. The calculated offset is then stored in the Offset register. When a new master is selected, all Lynx re - calculate their offsets.

Setting The Sync Point Register:

Sync Points can be set while tape is stationary or moving. The Lynx must be on line, however a master need not be selected.

1. Hold the "SYNC POINT" key and tap the "SET HOLD" key. The value in the timecode reader at that instant will be stored in the Sync Point register. The display will switch to the "SYNC PT" position for about 2 seconds to show the number just stored. NOTE: The yellow "SYNC PT" LED will remain constantly lit whenever a value other than 00:00:00:00 is stored in the register.

2. To set the register manualy or trim, follow the instructions in "Setting The Display"

above.

3. When the Lynx is off line, tapping the (GOTO) key will cause the transport to goto the value in the Sync Point register. This feature could be used as a poor man's autolocator.

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atab@utac.net