

Lynx Time Code Module

Manual Supplement

No. MS 92-007

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Lynx Time Code Module Software Release

DATE: 03/06/95
MODEL: Lynx Time Code Module
REVISION: All
SERIAL NO: All
SOFTWARE:

<u>PROM Name</u>	<u>Version</u>
V500	26-L

MANUAL: SAL 73A001 and VSI 73A002

DESCRIPTION:

V500-26L

Prior to V500-26L, the Lynx module would occasionally fail to generate a "Tape Out" condition when fully rewinding a tape off of the reel. When this occurred, the Lynx module would latch in Rewind mode, potentially allowing the machine to restart while tape was being threaded.

This condition has been corrected in V500-26L, but the following precaution must always be followed:

Before threading tape on any machine, make sure that the Lynx module is OFFLINE!

V500-26J

General: A change was made to the Studer serial machine track arming routine. Previously, tracks armed at the Studer machine were reset by the module, at the edit preroll point, overriding the local selection. Track arming now operates correctly.

Machines Affected: Studer A-827, A-820, A-810- and A-807 serially controlled machines. (Requires TimeLine Part Number 71C033, Studer Type 'B' cable with Serial Card.)

Note: This software update only affects modules used in VSI manner. Stand-alone operation is not affected.

DESCRIPTION (continued):

V500-26H

Sony Serial Communications:

Change to prevent potential corruption of serial communications with future AI-2 implementation. Also improves communication to non-Sony machines used on Sony settings.

Sony 3324/3348:

Change to eliminate problem with SSU installations where Sony 3348 put into play, at machine, requires repeated STOP keystrokes or play-then-stop, to get machine to actually stop.

V500-26G

General: A low level communications improvement was made to the RS422 serial port.

V500-26F

SONY 3348: 3348 transport settings have been modified to accommodate the upgraded 3348 transport.

General: A minor improvement to the search routine has been added.

GENERAL V500-26

This version will work as either a remote (VSI) module from a KCU or external editor, or will work stand alone (SAL) if the editor is turned off or disconnected.

Generator Tach>TC mode enabled. This will work only on the MASTER MACHINE.

Search / Park computation has been improved.

"gEn-rEF" error added. This occurs if you Jam-Sync when the incoming time code is not locked or the selected reference is wrong. The module will still allow the jam-sync, but if this error message occurs, it indicates from that point on, the time code will not be synchronous.

The generator will now automatically preset itself to a valid type of code if you go from int-xtal to ext-vid, and the type of code is wrong for the type of video detected.

"ignorEd" message added. This occurs on power up when a valid video sync signal is detected and the system reference is not set to EXT VID.

"EDITOR" menu option added. On initialization the Lynx module will prompt for an editor or controller type. If you are using the Lynx in a Stand-alone (SAL) configuration (i.e. Master/Slave chase synchronization) this menu option is ignored. Bypass it by pressing STORE and then DSPL SEL.

DESCRIPTION (continued):

GENERAL V500-26 (continued)

If you are using a TimeLine KCU, then depending on the KCU software the choice is either zero or one. When using other editing systems (GVG, ACE, etc.) you will need to choose a specific setting. These are:

0 = KCU [080 software]	1 = KCU [Pre KCU 080 software]
2 = CMX	3 = GVG
4 = ACE	5 = VRC2
6 = BOSS	7 = CASS
8 = POGOL	9 = TLC

Please note: With the CMX and GVG editor settings the Lynx automatically assigns the correct address. This new option menu has been combined in the same set-up column as the module Address. The SYNC option setting has been removed from the transport options menu list.

Capstan Wild Speed

This is a new menu item in the transport menu. It is the last item, after SERTC. This is an advanced feature, which should generally not be used, except by an experienced user. It allows the "wild speed" of a machine to be adjusted when a voltage-controlled machine does not run at the right speed before synchronizing, or a tape has been recorded way off pitch. Please note this information is held separately for each transport, and is restored when the transport is reselected. It is NOT erased when <tran+clr> is pressed. It is only erased if a complete memory clear is performed by holding the <clr> key on power up. This is to allow the information to be retained when selecting another machine.

The complete transport option menu list is as follows:

Phase	Phase mode on/off
Lift	Lifter control
Rly	Mute relay control
Spd	Locate approach speed adjustment
Sertc	Serial Time code / Tape timer select for serial video decks.
Capst	Capstan wild speed.

GENERAL, V500-14 and later

Instant entry into the transport menu by hitting <tran> + <setup> simultaneously.

Instant reset of transport parameters to factory default by <tran> + <clr> simultaneously.

Serial machines support CODE ONLY mode from a locked external time code source. This works with machines stopped, or unthreaded.

DESCRIPTION (continued):

GENERAL, V500-14 and later (continued)

Module accepts and ignores certain new Ampex VPR3 commands to allow use with newer versions of the ACE25 and other editors.

When used with KCU, machines will now be allowed to enter crash-record even if no tracks are selected.

When reselecting a transport on the Lynx panel, the KCU will receive the new transport information automatically without a re-poll.

Longer tape-out error message on Lynx panel.

On power-up, the VID DET message can be bypassed by pushing CLR. This will then default the module to INT XTAL mode. This means ext-vid is not required when video/digital audio machines are not being used.

In VSO mode, when used with the System Supervisor, the Lynx module will now quickly relock on gross changes in master tape speed.

When changing SPD value on front panel, the chase characteristics of the machine will more closely track the value that is entered. i.e. it will chase better after being modified.

SERTC, Serial time code inhibit menu item added to Lynx front panel, this was previously available only from the KCU:

SERTC = 0 Active. This allows serial control machines using Sony/Ampex serial protocol to do field accurate search, and the module to read still-frame time code directly from the machine serial port. This was previously only available using the KCU, but now is available in the SAL mode of the V500 software.

SERTC = 1 Serial time code is inhibited

"CAPSTAN" message added on the type of error which occurs when you forget to turn a machine capstan control switch to EXT, but try locking the transport. An AUTO <tran> <clr> of the capstan parameters occurs on this error.

GENERATOR TCT can now be switched directly from 30 to DF when in EXT VID mode. Previously, the module had to be put in INT XTL first.

Assemble mode added to VTR's

DESCRIPTION (continued):

Special Instructions

If you have KCU software older than KCU080-12:

V500 software will work with KCU software prior to KCU080-12 as long as certain steps are taken. Old KCU software requires that the Lynx modules be set to EXT VID mode and that their internal "frame sync" signal be "on". This is indicated by the EXT VID LED on the module being lit when the RDR display is showing.

On V500, the internal signals can be switched out of EXT VID mode, and the frame-sync signal will be inadvertently disabled, this will happen when you make a module a MASTER using the front panel switch.

If the module is in this condition, then do the following:

1. Select GEN REF SRC to EXT VID.
2. Select RDR display.
3. Select MSTR on.
4. Select REF SRC = EXT VID.
5. Select MSTR off.
6. Power down unit.
7. Power up unit.

With software versions later than KCU080-12 this process occurs automatically.

MACHINE INTERFACES

Ampex VTR's

- "Non-VITC" mode search for Ampex VTR's working.
- On VPR6: extended edits will never abort.
- VPR300: Initializes to E/E off.
- VPR80 updated. NOTE: does not support remote tt/tc select. The tape timer select must be set to the correct value - "ATC" or "LTC" mode.
- VPR3/6/80: Record tally in EDIT fixed. NOTE: the VPR300 does not have an edit tally due to a software bug in the machine that Ampex isn't going to fix.

Otari

- Stop pulse extended to help Stop problems on new MTR90 machines.
- DTR900-2A & DTR900-2d settings added.
- DTR900-1A & DTR900-1d Capstan control relay now releases in stop and wind.

DESCRIPTION (continued):

MACHINE INTERFACES (continued)

Mitsubishi

- Stop pulse extended to help Stop problems on X880 machines. The X880 now has its own menu setting.

Akai

- Akai menu reconfigured to remove the requirement to do a hardware modification in AKAI DR1200 machines.

Fostex

- D20 machine supported on the serial port.
 1. Lynx requires serial interface option
 2. Select "Fos-d20" on the Lynx menu. (RMT light will light if machine is communicating, will flash if not communicating)
 3. Select "BVE-900" (Ed-03) menu on Fostex NOT "Lynx" (Ed-02). See instructions in Fostex manual/addendum for how to do this. Be sure to check all the dip-switch settings on the back of the D20.
 4. The D20 machines requires both incoming time code and video sync in order to self-resolve. This is easy - patch the Lynx generator into the D20, and leave the generator running. Any time code number is OK.
 5. On the Lynx KCU, make sure you select "VITC ENABLE" on the <setup> <tran> menu. Otherwise the D20 may not locate correctly.
 6. To enable audio recording, enable track A1, which will enable A1 and A2 in the machine. Enabling A2 will not do anything. (This is the way the serial protocol was implemented in the D20). Time code recording is enabled by enabling the TC track on the KCU.
 7. In order to edit, the REC MODE toggle switch on the machine must be switched to EDIT.
 8. When searching backwards, the machine will rewind approximately 2 sec's behind the search point, and creep up to it before stopping. This is normal.
 9. Unlike a video machine, the D20 does not resolve properly to video sync when put into play locally at the machine. Therefore, whenever locking up slaves to the D20, put it in play from the KCU.

DESCRIPTION (continued):

MACHINE INTERFACES (continued)

Sony

- SerErr3 message removed when pushing ONLINE button on certain Sony machines.
- Video reference select on Sony VTR's changed to AUTO.
- Sometimes errors showing hours = 80 on VITC read fixed.
- Time code track data shows more correctly on KCU for certain machines, including BVW-75.
- Sony 3402 supported in mixed parallel/serial mode.
- BVU-800 machines initialize to SERTC = 1 (inhibited).
- Logic tally threshold voltages increased for MCI machines to allow use with some machines which due to vintage put out non-standard logic levels.
- APR24 capstan slew rate reduced to prevent machine from throwing an occasional loop on fast resync.
- BVU's and BVH record timing adjusted.
- The DVR-10 setting has been improved.
- The DVR-1000 setting has been improved.
- Sony 5850 works correctly.

Studer

- A827 Record compensation timing has been corrected.
- D820 digital machine added. This machine must be jumpered for LOW SPEED TACH.
The four settings are:

D820-PD	Parallel cable, digital (released) mode
D820-PA	Parallel cable, "analog" (constantly servo'd) mode
D820-SD	Serial cable, digital (released) mode
D820-SA	Serial cable, "analog" (constantly servo'd) mode.

In the "D" modes, make sure the machine is connected to the same external video sync source as the Lynx modules, and that the Lynx reference source is set to EXT VID. The Studer machine also requires setting internally to the correct video/time code reference relationship. To check if this is correct, make the machine the MASTER, put it in PLAY, and look at SUBFRAME OFFSET ERROR. It should be approximately .00, with no drift.

The "D" mode also requires that when time code is striped, the machine and the generator are both referenced to EXT VID. If you have any question, stripe some tape, and then try the above test.

The two D820 serial menus support track select from the KCU.

