

# Chapter 4 Getting Started

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## Introduction

Once the Micro Lynx system is installed, turn it on. Use the basic operating procedures in this chapter to demonstrate the Micro Lynx system features and controls. This chapter will help you to quickly become familiar with Micro Lynx operation and capabilities.

Refer to the Keyboard Controller chapter for more detailed information about each of the keys.

## Turn On and Initialization

The Micro Lynx has a battery back-up memory system. Each time the system is turned on, it powers up in the same condition as when powered down. All of the setup and transport information previously entered is immediately available.

However, the first time the Micro Lynx is turned on, the transports being used must be selected. The Installation chapter provides instructions to select the transport types. For subsequent power-ons, the last transport setup will be displayed. Always verify that the transport is correctly selected. The following is an abbreviated turn on procedure.

### Procedure

#### ***On the Tape Machine:***

1. [EXT]

Place a reel of time coded tape on the machine(s). Set the Tape Machine to external speed (some tape machines will automatically be set to external by the Micro Lynx).

**On the System Unit:**

2. [POWER]

*POWER LED turns on  
SYSTEM DATA LED on  
SYSTEM VALID LED on  
KEYBOARD SIGNAL LED on  
KEYBOARD VALID LED on*

Turning on the System Unit power. System internal communications are operational. Keyboard communications are operational.

**On the Keyboard Controller:**

- 3.

```
Lamp test, Holding memory
```

MOTION CONTROL LEDs are sequentially tested.

```
Micro Lynx Keyboard Control Unit  
Version x.xxx
```

The software revision number is displayed.

```
Tran: A AUTO Serial TRANSPORT  
Tran: B AUTO Serial TRANSPORT
```

Displays the transport types selected for each machine. If the incorrect transports are displayed, use the initialization procedure in the Installation chapter to select the correct transport type. If this is the first time that the Micro Lynx has been turned on, or the Keyboard has been reset, transports are not yet assigned and No Transport is displayed.

```
Tran: C Not Available  
Ref: IntFix
```

Displays transport type selected if M3 option is installed; otherwise displays Not Available. Displays currently selected system reference.

```
Hold the "GRP" key, and add  
groups in order of priority
```

The Micro Lynx default is group mode. When no machines are selected to the group, a prompt telling you how to select machines to the group is displayed.

*F1 LED on  
F2 LED on  
F3 LED on  
REF LOCK LED on  
GRP LED flashing  
A LED flashing  
B LED flashing  
TCG LED flashing*

The Keyboard LEDs light. The C LED will flash if the M3 card has been installed. The F3 LED will come on if a VITC Reader Card has been installed.

**Selecting a transport (if selections have been made, jump to Step 9)**

4. [SETUP] + [TRAN] + [A]

SETUP LED flashes  
 TRAN LED on  
 A LED on

Select the setup mode. Each transport must be identified by manufacturer and machine type.

```
Setup: AUTO Serial TRANSPORT
Tran:
```

The default transport selection is displayed. You have entered the transport select mode.

5. [NEXT]

```
Setup: AMPEX ATR-100
Tran:
```

Using the [NEXT] or [LAST] key select the manufacturer of the machine connected to the A (Transport 1) port. For this example select Ampex.

6. [+]

```
Setup: AMPEX ATR-124
Tran:
```

Press [+] and [-] keys to select the machine type. Refer to the Cable Reference Guide, in the Appendix, for the machines supported.

7. [B]

```
Setup: AUTO Serial TRANSPORT
Tran:
```

Select the second transport B (Transport 2), repeat steps 4-6 until all machines (A-C) have been set up.

8. [SETUP]

```
Hold the "GRP" key, and add
groups in order of priority
```

Machine selection is complete and the setup is saved.

**Initialization Procedure:**

9. [SOLO]

```
SOLO:a . a-> 1:01:14:07
0
```

In Solo mode only one transport is controlled. Use the transport controls to check motion.

10. [>] PLAY

```
SOLO:a >L a-> 1:01:14:07
0
```

Put the machine into play, time code should be running.

[<<] RWD

```
SOLO:a <<                a→ 1:00:00:03
                             0
```

Puts the machine into rewind, time code should run backward.

[>>] FFD

```
SOLO:a >>                a→01:07:14:09
                             0
```

Puts the machine into fast forward, time code should run forward.

[ ] STOP

```
SOLO:a .                  a→ 1:01:14:07
                             0
```

Transport should stop.

11. [B]

```
SOLO:b .                  b→ 1:01:14:07
                             Err:    0.-
```

Solo the next machine. Use the transport controls to check motion. If the M3 card is installed, repeat steps 9 and 10, but select machine C.

[>] PLAY

```
SOLO:b >L                b→ 1:01:14:05
                             Err:    0
```

Puts the machine into play, time code should be running.

12. [ ] STOP

```
SOLO:b .                  b→ 2:09:10:03
                             Err:    0
```

***You are ready to use the Micro Lynx.***

## Set the System Reference

Before using the system, decide what system speed reference your machines will be locked to. When a system reference is selected, the Micro Lynx will synchronize all machines including the Master, as slaves to this timing reference. This provides fast and stable locking because each machine is independently controlled and locked.

The REF LOCK LED will light if the selected reference is valid. If the selected reference is not present or the Micro Lynx can not lock to it then the REF LOCK LED will flash.

The Micro Lynx time code generator is also locked to the system reference. This guarantees that when generating time code, the code rate (speed, not code type) is the same as that used by the rest of the system. There are six reference selections:

- I** Internal Fixed      Micro Lynx internal crystal
- i** Internal Variable    Micro Lynx internal frequency synthesizer
- L** External Video      An external composite or black burst video sync signal
- P** Aux Input            A pilot tone connected to the Aux input
- V** VSO Master          Variable speed, determined by vari-speeding the Master transport
- A** ACG                  The Micro Lynx Audio Clock Generator card

The Micro Lynx reference defaults to Internal Fixed (I). The system speed or rate defaults to 29.97 Frames and the generator time code type to 30 Frames (SMPTE 30 Frame). Unless you use a different frame rate, for example 25 Frame EBU, a video, or digital machine that should be referenced to video sync, then you should use this reference to get started. Use the following procedure to change the system reference.

System timing parameters are set in the TCG Options Menu, the following menu selections are available:

**Table Chapter 4 -1. TCG Options Menu**

KEY	MENU	SUB-MENU	RANGE
TCG	TCG Options	0 System Ref	<i>Intfix, Intvar, Extvid, Aux, VSO Master, ACG</i>
		1 System Spd/Code	24Hz/24; 25Hz/25 ( <i>PAL</i> ); 29.97Hz/DF; 29.97Hz/30 ( <i>NTSC</i> ); 30Hz/DF; 30Hz/30
		2 Varispeed %	87.5% - 112.5% ( <i>100.00%</i> ) Jog/Shtl Wheel = $\pm 0.1\%$ +/- = $\pm 0.1\%$
		3 TCG Group Mode	<i>Play, Run; Play, Mute; Play, Wind</i>
		4 TCG Still Mode	<i>Off, On</i>
		5 Aux Output Sel	<i>Pilot, Reshape 1, Reshape 2, Reshape 3, GPI-2 Beep</i>
		6 Video Sync Gen	<i>Off, On</i>
* Factory default settings are in italics.			

### Procedure

```
SOLO:b . b→ 1:01:14:05
Err: 0.-
```

- 1. [SETUP] + [TCG] + [0]

SETUP LED flashes  
TCG LED turns on

Enter Setup mode. Select the time code generator menu.

```
Setup: TCG options
Selection: System Ref: IntFix
```

Select time code generator and system reference

- 2. [+]

```
Setup: TCG options
Selection: System Ref: IntVar
```

Select the next reference option.

- 3. [-]

```
Setup: TCG options
Selection: System Ref: IntFix
```

Select the previous reference option.

- 4. [NEXT] (or 1)

```
Setup: TCG options
Selection: System Spd/Code: 29.97 Hz/30
```

The current generator rate and code type are displayed.

- 5. [+]

```
Setup: TCG options
Selection: System Spd/Code: 30 Hz/DF
```

The next generator rate and code selection is displayed.

[+]

```
Setup: TCG options
Selection: System Spd/Code: 30 Hz/30
```

The next generator rate and code selection is displayed.

[-]

```
Setup: TCG options
Selection: System Spd/Code: 29.29 Hz/30
```

Go back and select the appropriate code speed.

- 6. [SETUP]

```
SOLO:b . b→ 1:01:14:05
Err: 0.-
```

Exits setup mode and returns to the normal operating display.

## Generate Time Code

The Micro Lynx generates SMPTE and MIDI time code. Two macro keys have been programmed to automate the process of generating and striping time code.

Pressing [MACRO] then [9] (DUR) runs a macro, which makes the Micro Lynx ready to generate time code. All machines are deselected from the group, all transports are set to wild speed and the Micro Lynx is placed into TCG Setup mode.

Pressing [MACRO] then [8] (OUT) runs a macro, which exits the time code striping mode and returns the Micro Lynx machine to resolve mode.

## Procedure

1. [MACRO] + [9] (DUR)

Macro 9 automatically sets the Micro Lynx to generate time code. It ungroups any group, sets all transports to wild speed, and leaves the Micro Lynx in TCG setup mode.

*Note:* To select a reference speed other than the default, the group must be ungrouped or the reference must be the master.

2. TCG LED on

```

Setup:  TCG options
Selection:  System Spd/Code: 29.29 Hz/30

```

Use the [+] and [-] keys to select the system speed and code type to generate.

3. [SETUP]

SETUP LED off

The normal operating screen is visible.

- 4.

```

SOLO:t .                t-> 0:00:00:00
                        Err: 0.00

```

The current time code generator value is displayed.

5. [>] PLAY

```

SOLO:t >L              t-> 1:00:00:00
                        Err: 0.00

```

The generator runs locked to the system reference.

6. [ ] STOP

```

SOLO:t .                t-> 1:00:00:00
                        Err: 0.00

```

The generator stops running.

- 7. [MACRO] + [8] (OUT)

The transport(s) are returned to resolve mode and ready for normal operation.

**To start the generator at a specific time code value:**

- 8. [CLR] + 1 00 00 00

```
SOLO:t . t→ 1:03:45:19
1:00:00:00
```

One hour is entered into the Data Entry register.

- 9. [STO]

*STO LED flashes*

```
Store reg or mem t→ 1:03:45:19
1:00:00:00
```

The Micro Lynx is ready to store register or memory information.

[0] (TIME)

```
SOLO:t . t→ 1:00:00:00
Time: 1:00:00:00
```

One hour is now stored in the Generator Time register.

- 10. [>] PLAY

```
SOLO:t >L t→ 1:00:00:00
Time: 1:00:00:00
```

The generator will generate time code starting at 1 hour locked to the system reference.

## Capture and Locate

The Micro Lynx can capture and store in memory up to 100 time code numbers. These can be retrieved and used as auto-locate positions or for other time code operations.

### Procedure

1. [A]

SOLO:A	A→ 1:03:52:17
	0

For this example we will Solo a machine. Capture and Locate can be done in both Solo and Group mode.

#### **Capture a value:**

2. [>] PLAY + [CAPT]

*CAPT LED flashes*  
*STO LED flashes*

Play to the time code that you want to capture and save. The Micro Lynx has captured a time code and is ready to store the number.

Store reg or mem	A→ 1:07:02:20
	1:03:52:17

3. [MEM]

*MEM LED flashes*

Store memory	1:03:52:17
--------------	------------

Choose a memory location to store the time code number.

4. [1]

SOLO:A >L	A→ 1:09:24:04
	Mem 1 1:03:52:17

5. [CLR]

SOLO:A >L	A→ 1:10:16:10
-----------	---------------

Clear the calculator data entry register.

#### **Retrieve a value stored in a memory location:**

6. [MEM]

*MEM LED flashes*

Recall memory	0
---------------	---

The Micro Lynx is ready to recall a time code number that is stored in a memory location.

7. [1]

```
SOLO:A >L                               A→ 1:11:07:12
                                           Mem 1  1:03:52:17
```

The value stored in memory 1 is retrieved.

**Locate using the value in the Data Entry register (lower right of display) as the locate point:**

8. [LOC]

```
SOLO:A >Loc                               A→ 1:03:47:17
                                           Mem 1  1:03:52:17
```

The transport will locate to 1:03:47:17, the time code number in the Data Entry register (memory location 1) minus the Preroll (5 seconds default).

## Make a Group

The Micro Lynx can simultaneously control up to three tape machines, the time code, and MIDI time code generator. When play on the Motion Control keys is pressed, all machines in the group will go into play and synchronize.

When the Micro Lynx first powers up, no machines are selected, so you must set up your machines. Use the GRP and Machine Select keys (A-C, TCG, and MIDI) to group machines. In group mode, the display shows the status of the Master machine; individual machine status can be viewed by pressing the specific machine key.

### Procedure

1. [GRP]

*GRP and machine LEDs flash*

```
Hold the "GRP" key, and add
groups in order of priority
```

This is the machine selection prompt. It is assumed that you have not grouped the machines yet.

2. [GRP] + [A]  
 [GRP] + [B]  
 [GRP] + [TCG]

*A LED turns on  
 B LED turns on  
 TCG LED turns on  
 MIDI LED turns on*

Press [GRP], hold it, and press the Machine Select key. The master machine is displayed as a capital letter and the slave machines as lower case letters. When TCG is included in the group, MIDI is also automatically grouped.

```
A* b t                               A→ 1:03:47:17
. . .                                 0
```

Time code and machine letters are displayed and the A machine is the Master.

3. [B]

```

STAT:b .                b→ 1:03:47:17
. . .                  Err:      0.-

```

Put the slave machine b into group status mode. In group status mode you may check the time code and error for that machine.

4. [B] or [GRP]

```

A* b t                A→ 1:03:47:17
. . .                  0

```

Press the machine key [B] again or [GRP] to return to Group mode.

**Remove a machine from the Group:**

5. [GRP] + [B]

```

A* t                A→ 1:03:47:17
. .                  0

```

Press [GRP] and the machine select key to remove a machine from the group. In this example b is removed.

6. [GRP] + [B]

```

A* b t                A→ 1:03:47:17
. . .                  0

```

Put the slave machine b back into the group.

## Locking in a Group

Before being used in the system, each machine controller must individually resolve and lock its associated tape machine. This is accomplished by soloing each tape machine and then playing it until it locks to the system speed reference.

Look at the display. In addition to identifying the machine status as master or slave, and showing the time code, it indicates whether the machine and group are in lock. The letter defines the reference source. In this example II is used; however, any of the reference letters may be used.

### Procedure

```

A* b t                A→ 1:09:22:23
. . .                  0

```

1. [SOLO] + [A]

```

SOLO:A* .            A→ 1:09:22:23
                    Err:      0.-

```

Solo the first machine. The \* indicates that it is the reference machine and the capital letter indicates that it is the master.

2. [>] PLAY

```
SOLO:A >L                A→ 1:10:00:00
                        Err: 0.00
```

Press [>] on the motion control keys. As the tape machine plays, it will automatically resolve and lock.

3. [ ] STOP

```
SOLO:A .                A→ 1:10:00:00
                        Err: 0.-
```

Press [ ] on the motion control keys once the machine has achieved lock.

4. [B]

```
SOLO:b .                b→ 1:30:00:00
                        0
```

Solo the next machine. The lower case letter indicates that this is a slave machine. Repeat steps 2 - 4 for each machine.

5. [GRP]

```
A* b t                A→ 1:10:00:00
. . .                0
```

Enter Group mode. If the group prompt message "Hold the "GRP" key and add groups in order of priority" is displayed, perform the procedure described in "Make a Group".

6. [ALL STOP]

[ ] STOP

```
A* b t                b→ 1:30:40:01
. Ch .
```

Press [ALL STOP] followed by [ ]. The Slave machines will chase to the correct location.

7. [>] PLAY

```
A* b t                b→ 1:30:40:01 II
>L >L >L                0
```

Press [>]. The Group will lock. Lock status is indicated by the II to the right of the time code.

## Set an Offset

Offsets are used if the time code on two or more tapes are not coincident. For example, if tape A starts at 00:00:00:00 and tape B starts at 02:00:00:00, then a record in point of 00:30:00:00 cannot be correct for both machines. Use the Micro Lynx to enter an offset to automatically compensate for the time code difference between tapes.

**The Micro Lynx always calculates a machine's offset from the reference machine.** The Micro Lynx indicates the reference machine with an \*, the master machine with a capital letter and

slave machines with lower case letters. In this example, the A transport is the reference and master machine.

A* b t	b→ 1:09:22:23
	Err: 0.-

To change the reference machine, clear the group (Press [GRP] + [SETUP]), hold down the [GRP] key and reselect the machines (the first machine selected is the reference machine). If required, the Master machine can be different from the reference machine. In this case, the Master machine can have an offset from the reference machine. (See Change the Master Machine).

The offset is the difference in the number of frames between the reference and slave or master tape at the point where they are to be synchronized. For example:

Slave time code – Reference time code = offset number of frames  
 02:00:00:00 – 01:00:00:00 = +1 hour offset

When a machine is offset, the machine letter is marked with a (+) to show that an offset is present

**Note:** Offsets cannot be set for the reference machine.

In the following example A is the master and reference and B is the slave machine. A, B and TCG are grouped.

## Procedure

A* b t	b→ 1:09:22:23
. . .	0

1. [SOLO] & [A]

SOLO LED on  
 A LED on

SOLO:A	A→ 1:09:32:03 I
	0

Solo the Master machine.

2. [>] PLAY

SOLO:A >	A→ 1:09:32:03 II
	0

The A machine goes into play.

3. [ ] STOP

SOLO:A .	A→ 2:00:00:00
	Err: 0.-

Locate the machine to a point and stop.

4. [B] & [>] PLAY

*SOLO LED on*  
*B LED on*

```
SOLO:b                               A→ 1:09:32:03 I
                                     0
```

Solo the Slave machine.

2. [>] PLAY

```
SOLO:b >                             A→ 1:09:32:03 II
                                     0
```

The b machine goes into play.

5. [ ] STOP

```
SOLO:b >                             b→ 2:03:52:03
                                     Err: 0.-
```

Locate the B machine to a point and stop.

6. [CAPT]

*CAPT LED flashes*  
*STO LED flashes*

The slave time code position is captured. Micro Lynx prompts for a register to store it in.

```
Store reg or mem                     b→ 2:03:52:03
                                     2:03:52:03
```

7. [OFST] (5)

```
SOLO:b.                               b→ 2:03:52:03
                                     Ofst: 3:52:03
```

Press Calculator key [5] (OFST). The slave offset is automatically calculated and stored.

8. [GRP]

*A LED on*  
*B LED on*  
*GRP LED on*  
*TCG LED on*  
*MIDI LED on*

```
A* b+ t                               A→ 2:00:00:00
. . .                                 0
```

Return to group mode. The B transport is marked with a "+" to show that an offset is present.

9. [>] PLAY

```
A* b+ t                               A→ 2:00:00:00 II
>L >L >L                             0
```

The machines go into play and lock with the offset.

## 10. [ ] STOP

A* b+ t	A→ 2:00:00:00
. . .	0

**Offset calculation using sync points:**

## 11. [SOLO], [A] &amp; [&gt;] PLAY

SOLO LED on  
A LED on

SOLO:A >L	A→ 1:00:00:00
	Err: 0.00

Solo the Master machine.

## 12. [CAPT] &amp; [REF] (3)

CAPT LED flashes  
STORE LED flashes

SOLO:A >L	A→ 1:00:00:00
	Ref: 1:00:00:00

## 13. [B]

B LED on  
SOLO LED on

SOLO:b >L	b→ 2:03:52:03
	Err: 1:00:00:00

Solo the Slave machine.

## 14. [CAPT] &amp; [SYNC] (4)

CAPT LED flashes  
STORE LED flashes

SOLO:b >L	b→ 2:03:52:03
	Sync: 2:03:52:03

Capture the sync point. The offset is automatically calculated and stored in the Offset register.

## 15. [RCL] &amp; [OFST] (5)

RCL LED flashing

SOLO:b >L	b→ 2:03:52:03
. .	Ofst: 1:03:52:03

Use the [RCL] key, if you wish to verify that the correct offset was stored in the Offset register.

## Trim an Offset

Sometimes an offset must be trimmed. The frame or subframe count can be increased or decreased in any register. The default trim values are 1 frame and 1 subframe. To change the trim increment value, refer to SYS under SETUP in the Keyboard Controller chapter.

**Trim Frame.** The value can be adjusted between 1 and 10 frames.

**Trim Subframe.** The value can be adjusted between 1 and 25 subframes.

### Procedure

1. [RCL] & [7] (OFST)

```
SOLO:A* b+ t                b→ 2:03:52:03
. . .                      Ofst: 1:03:52:03
```

Assume that the A and B machines are grouped.

**Use + and – keys to trim:**

2. [B]

```
STAT:b .                    b→ 2:03:52:03
. . .                      Err: 0.-
```

Select status mode for machine B.

3. [TRIM]

*TRIM LED flashes*  
 + LED on  
 – LED on

```
STAT:b .                    b→ 2:03:52:03
Trim by 1                  Ofst: 1:03:52:03
```

The frame trim increment is displayed. The offset register is automatically called.

4. [+]

Use the plus [+] key to dynamically increase the offset. Holding the [+] key down will make the key auto-repeat.

5. [-]

Use the minus [-] key to dynamically decrease the offset. Holding the [-] key down will make the key auto-repeat.

6. [TRIM]

```
STAT:b .                    b→ 1:08:36:23
. . .                      0
```

Press [TRIM] to exit trim mode, save the new offset and return to Status mode.

or [B]

```

A* b+ t           A→ 1:00:00:00
. . .             0

```

Press [B] to exit trim mode, save the new offset and return to Group mode.  
or [CLR]

```

Old Offset used

```

Press [CLR] to exit trim mode without storing the new offset value.

#### Use the Jog Wheel to trim:

- [TRIM]  
Jog Wheel  
*TRIM LED flashes*  
+ LED on  
- LED on

```

A* b+ t           A→ 1:04:12:23
. . .             0

```

The Jog Wheel can be used to dynamically trim the offset up or down instead of using the [+] and [-] keys.

**Note:** In this example, the tape machines were in Stop. An offset can be trimmed dynamically with the tape machines in play.

## Change the Master Machine

The Micro Lynx will allow any machine to be the group Master. You can change the Master at any time and all positional relationships will be maintained, any offsets will be transferred to the slave machines. Press and hold the new master machine key (A-C, TCG) followed by [SETUP].

### Procedure

#### Change the Master Machine: (default operation)

- 

```

A* b+ t           A→ 1:09:55:00
. . .             0

```

The normal group operating display.

- [B] + [SETUP]

```

a+ B* t+          B→ 1:00:00:00
. . .             0

```

Press and hold [B], then press [SETUP], the Master and reference machine will be reselected. In this example, the B machine is selected as the new master.

**Note:** The original offset in B will transfer to the a and t machines as the system time code reference machine changes with the Master.

#### Separate the Master and Reference Machines:

**Note:** If Setup Group option, REF follow MSTR is set to OFF, then when the Master is changed, the reference machine will remain the same. See SETUP (in this section) and the Keyboard Control section for more information on this feature.

- [B] + [SETUP]

```
a* B+ t           B→ 1:00:00:00
. . .             0
```

Press and hold [B], then press [SETUP], the Master machine only will be reselected. In this example, the B machine is selected as the new master.

**Note:** The Master still has an offset from the time code reference machine.

**Change the Reference Machine:**

- [GRP] + [SETUP]

```
Hold the "GRP" key, and add
groups in the order of priority
```

Clear all machines from the group.

- [GRP] + [B]  
[GRP] + [A]  
[GRP] + [TCG]

```
a B* t           B→ 1:00:00:00
. . .             0
```

The first machine selected to the group becomes the Reference and Master.

- Repeat steps 4 and 5, but press [GRP] + [A] first to set the Micro Lynx back to A as Master and Reference, before proceeding to the next example.

## Do an Edit

The Micro Lynx has comprehensive Rehearse, Record, and Replay edit routines. In Points and Out Points can be quickly marked. The Micro Lynx cues all transports to the preroll point, executes an automatic record at the in point, and drops out of record at the out point.

F1 is a macro that sets the In Point.

F2 is a macro that sets the Out Point.

### Procedure

- [>] PLAY

```
A* B. t           A→ 1:00:00:00 II
>L >L >L         0
```

The group goes into play and locks.

## 2. [F1]

```
A* B. t           A→ 1:00:00:00 II
>L >L >L           (A) In: 1:00:00:00
```

Mark a record in point. The message MACRO I EXECUTING will be momentarily displayed.

## 3. [F2]

```
A* B. t           A→ 1:00:20:00 II
>L >L >L           (A)Out: 1:00:20:00
```

Mark a record out point. The message MACRO II EXECUTING will be momentarily displayed.

## 4. [EDIT]

*EDIT LED on*  
*CUE LED flashes*  
*REPLAY LED flashes*  
*REC LED flashes*  
*REH LED flashes*

```
Select edit mode   A→ 1:00:00:00
. . .             (A)Out: 1:00:20:00
```

Enter Edit mode. Edit mode selection LEDs flash to prompt a selection.

## 5. [REC]

*EDIT LED on*  
*CUE LED on*  
*REC LED flashes*

```
55:00:00         A→ 55:00:00
CueCue           (A)Out: 1:00:20:00
```

Select Edit Record mode. Group cues to the cue point. The preroll time defaults to 5 seconds. (Cue point = IN - PREROLL)

## 6.

```
"WARNING: No Active Transports Enabled"
```

The group goes into play and locks. A prompt describing the machine record status is displayed. Hold the [RDY] key and press machine keys (A-C) as required to record enable each machine.

```
In: 5:00         A→ 55:00:00
Dur: 20.00       (A)Out: 1:00:20:00
```

Preroll time counts down.

```
Record           A→ 1:00:00:00 LL
Dur: 20.00       (A)Out:
```

The Group goes into record at the in point.

```
DONE            A→ 1:20:00:00 LL
Post: 5.00       (A)Out:
```

The Group drops out of record at the out point and post rolls. The Post roll time defaults to 5 seconds.

7. [EDIT]

*EDIT LED on*  
*CUE LED flashes*  
*REPLAY LED flashes*  
*REC LED flashes*  
*REH LED flashes*

Select edit mode	A→ 1:00:00:00
. . .	(A)Out: 1:00:20:00

Enter Edit mode. Edit mode selection LEDs flash to prompt a selection.

8. [REPLAY]

*EDIT LED on*  
*CUE LED on*  
*REPLAY LED flashes*

"WARNING: No Active Transports Enabled."
--

The group goes into play and locks. A message describing the machine record status is displayed.

In: 5:00	A→ 55:00:00
Dur: 20.00	(A)Out:

Preroll time counts down.

REPLAY	A→ 1:00:00:00 LL
Dur: 20.00	(A)Out:

The Group goes into replay at the in point.

DONE	A→ 1:20:00:00 LL
Dur: 5:00	(A)Out:

The Group drops out of replay at the out point and post rolls. The Post roll time defaults to 5 seconds.

9. [LOOP]

Cue: 55:00:00	A→ 55:00:00
CueCue .	(A)Out: 0

If [LOOP] is selected before the edit is complete, then the group will recue to the preroll point and repeat the sequence.

## Reset the System

If it becomes necessary to clear or reset the system, the calculator [CLR] key is used in combination with a number of other keys. You can reset the system or a specific parameter value to its default. In the following section, hold down the first key, then press the second key. Before these commands are executed, a warning message is displayed.

Press ENTR to confirm

### CLR

In normal operating mode this key clears the calculator data entry register. In setup mode it quickly resets track record enables to off and variable rates back to nominal values. For example, press [SETUP] then [TCG]. Press [CLR] to set the varispeed percentage back to 100%.

### CLR + SYS

Simultaneously pressing these keys will cold boot or reset the System Unit. This clears all user setup options back to the defaults.

If you are sure that you want to reset the System Unit, press the [ENTR] (SHTL) key.

### CLR + SETUP

Simultaneously pressing these keys will reset the Keyboard Controller. This key combination is used to initiate either a “cold” or “warm” reset of the keyboard after which the unit returns to normal operating mode.

If you are sure that you want to reset the Keyboard Controller, press the [ENTR] (SHTL) key. This initiates a “Warm boot” or a soft reset in the Keyboard Controller. All local keyboard variables are re-initialized, no information is lost, and the Keyboard Controller returns to normal operation.

To completely reset or “cold boot” the keyboard, press [CLR] + [SETUP] followed by the [ENTR] key.

Press [ENTR], then press and hold the [CLR] key. Any information that is stored in the System Unit will be restored. However, any data that is stored in the Keyboard Controller will be erased. See the Keyboard Controller chapter for a more detailed explanation.



[ENTR] (SHTL)

"Holding Memory" unless you press and hold CLR key within 1 second

Lamp test, Holding memory

5. [CLR]

Lamp test, Clearing memory

#### CLR + TRAN

6. [SOLO] & [A]

SOLO:A > A→ 1:00:00:00  
0

Select Solo mode. Select the machine to reset.

7. [CLR] + [TRAN]

Transport Clearing Now

The selected machine is reset to factory default parameters.

**Remember:** It is not necessary to reselect the transport.

## Customize the Micro Lynx Setup

The Micro Lynx has a comprehensive setup procedure that allows the system to be customized precisely for a particular mode, transport or application. The setup options are organized by function in a menu type format in which there are currently 14 option categories:

Key	Category
ACG	Audio Clock Generator
SYS	System
TRAN	Transport
EVNT	Events
MEM	Memory
TCG	Time Code Generator & System Reference
GRP	Group
LOOP	Loop
RDY	Record Ready
TRKS	Tracks
KEY	Rollback, REH, REC Operation
EDIT	Edit
MACRO	Program Macro
F3	VITC Reader

Press the [SETUP] key to enter setup mode. Next, select the category that you wish to modify. After modifying the selected

option, exit setup mode by pressing [SETUP] a second time. Each menu in a particular category can be accessed either directly by selecting it numerically or sequentially by pressing the [LAST] and [NEXT] keys. Step through the menu options by pressing the [+] and [-] keys. The setup key options are provided in a table at the end of this chapter and in Appendix A. All selections and associated numbers are listed.

If power to the Micro Lynx is turned off, ALL settings are saved. The last settings entered will be restored when the Micro Lynx is turned back on. The following is a typical Micro Lynx Setup Menu:

Table Chapter 4 -2. Micro Lynx Setup Menu

KEY	MENU	SUB-MENU	RANGE
SYS	System Options	0 LED Brightness	20% - 100% (100%)
		1 DSPL Contrast	30% - 100% (70%)
		2 DSPL Timeout	Off, 1, 5, 10, 20 min., Never
		3 Jog Speed	1-10 (5)
		4 Trim Frame	01-10 (01)
		5 Trim Subframe	01-25 (01)
		6 Port Select	MAC:MIDI, 422:ES MAC:ES, 422:Off

## Setup

Table 4-3 is a complete list of all of the Micro Lynx setup options. The table is in quick reference form that excludes any detailed explanations of each option. For a more comprehensive explanation of each of the menus, see the Keyboard Controller chapter.

Press the [SETUP] key to enter setup mode. Next press the key for the category that you wish to modify. After modifying the selected option, exit setup mode by pressing [SETUP] a second time. Each menu in a particular category can be accessed either directly by selecting it numerically or sequentially by pressing the [LAST] and [NEXT] keys. The individual menu options are stepped through by pressing the [+] and [-] keys.

Table Chapter 4 -3. Micro Lynx Setup Selections

<p>[SETUP]</p> <p><b>[ACG] ACG OPTION</b></p> <ul style="list-style-type: none"> <li>[0] NOM S/RATE OUT             <ul style="list-style-type: none"> <li>32.000 Ks/s</li> <li>[+/-] 44.056 Ks/s</li> <li>44.100 Ks/s</li> <li>47.952 Ks/s</li> <li>48.000 Ks/s</li> </ul> </li> <li>[1] VAR RATIO OUT             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[2] VAR RATIO OUT %             <ul style="list-style-type: none"> <li>85%-115% (100.00%)</li> </ul> </li> <li>[3] OVERSAMPLE OUT             <ul style="list-style-type: none"> <li>128</li> <li>[+/-] 192</li> <li>256</li> <li>384</li> </ul> </li> <li>[LAST/NEXT] [4] NOM S/RATE IN             <ul style="list-style-type: none"> <li>32.000 Ks/s</li> <li>[+/-] 44.056 Ks/s</li> <li>44.100 Ks/s</li> <li>47.952 Ks/s</li> <li>48.000 Ks/s</li> </ul> </li> <li>[5] VAR RATIO IN             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[6] VAR RATIO IN %             <ul style="list-style-type: none"> <li>87.5%-112.5% (100.00%)</li> </ul> </li> <li>[7] OVERSAMPLE IN             <ul style="list-style-type: none"> <li>128</li> <li>[+/-] 192</li> <li>256</li> <li>384</li> <li>OFF</li> </ul> </li> <li>[8] REFERENCE IN             <ul style="list-style-type: none"> <li>AES/EBU</li> <li>CLOCK IN BNC</li> </ul> </li> <li>[EDIT] EDIT OPTION             <ul style="list-style-type: none"> <li>[0] EDIT Q/C             <ul style="list-style-type: none"> <li>DISABLE</li> <li>RETRY</li> <li>STOP</li> </ul> </li> <li>[1] EDITS ROLL AS             <ul style="list-style-type: none"> <li>MAST/SLAVE</li> <li>ALL SLAVES</li> </ul> </li> </ul> </li> <li>[EVENT] SELECT GPI OPTIONS <sup>1</sup> <ul style="list-style-type: none"> <li>[1] GPI 1             <ul style="list-style-type: none"> <li>NORMAL</li> <li>AUTOSET</li> <li>REC TALLY</li> <li>EDIT REC</li> <li>REH TALLY</li> <li>EDIT REH</li> <li>LOCK TALLY</li> </ul> </li> <li>[2] GPI 2             <ul style="list-style-type: none"> <li>[0] MODE             <ul style="list-style-type: none"> <li>NORMAL</li> <li>AUTOSET</li> <li>REC TALLY</li> <li>EDIT REC</li> <li>REH TALLY</li> <li>EDIT REH</li> <li>LOCK TALLY</li> </ul> </li> <li>[1] BEEP MODE             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[2] BEEP SPACING             <ul style="list-style-type: none"> <li>10-30 (20)</li> </ul> </li> <li>[3] LAST BEEP             <ul style="list-style-type: none"> <li>MUTED</li> <li>ON</li> </ul> </li> </ul> </li> </ul> </li> </ul>	<p><b>[GRP] GROUP OPTIONS</b></p> <ul style="list-style-type: none"> <li>[0] SEARCH MODE             <ul style="list-style-type: none"> <li>CHASE</li> <li>GROUP</li> </ul> </li> <li>[1] REF FOLLOW MSTR             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[2] GROUP PARKAHEAD             <ul style="list-style-type: none"> <li>0-30 (25)</li> </ul> </li> <li>[3] GRP LED STATUS             <ul style="list-style-type: none"> <li>NORMAL</li> <li>TIMECODE</li> </ul> </li> <li>[LOOP] LOOP OPTIONS             <ul style="list-style-type: none"> <li>[0] AFTER EDIT             <ul style="list-style-type: none"> <li>RE-EDIT</li> <li>REPLAY</li> </ul> </li> <li>[1] AFTER REPLAY             <ul style="list-style-type: none"> <li>END</li> <li>REPEAT</li> </ul> </li> <li>[2] AFTER END             <ul style="list-style-type: none"> <li>STOP</li> <li>RECUE</li> </ul> </li> </ul> </li> <li>[MACRO] PROGRAM MACRO             <ul style="list-style-type: none"> <li>[0-9] (1,2,3,8 &amp; 9)</li> </ul> </li> <li>[MEM] MEMORY OPTION             <ul style="list-style-type: none"> <li>MEMORY SIZE             <ul style="list-style-type: none"> <li>0-9</li> <li>00-99</li> </ul> </li> </ul> </li> <li>[MIDI] MIDI OPTIONS             <ul style="list-style-type: none"> <li>[0] MIDI OUT JACK             <ul style="list-style-type: none"> <li>OFF</li> <li>MTC</li> <li>MIDI DATA</li> <li>MTC + DATA</li> <li>I/F THRU</li> </ul> </li> <li>[1] I/F OUT JACK             <ul style="list-style-type: none"> <li>OFF</li> <li>MTC</li> <li>MIDI DATA</li> <li>MTC + DATA</li> <li>MIDI THRU</li> </ul> </li> <li>[2] MAC OUT JACK             <ul style="list-style-type: none"> <li>OFF</li> <li>MTC</li> <li>MIDI DATA</li> <li>MTC + DATA</li> <li>MAC JACK</li> </ul> </li> <li>[3] MIDI THRU JACK             <ul style="list-style-type: none"> <li>MIDI IN</li> <li>MIDI OUT</li> </ul> </li> <li>[4] MTC SOURCE             <ul style="list-style-type: none"> <li>MIDI IN JACK</li> <li>I/F JACK</li> <li>MAC JACK</li> </ul> </li> <li>[5] MIDI DATA SRC             <ul style="list-style-type: none"> <li>MIDI IN JACK</li> <li>I/F JACK</li> <li>MAC JACK</li> </ul> </li> <li>[6] MIDI RESOLVE             <ul style="list-style-type: none"> <li>OFF</li> <li>ACG SERVO</li> </ul> </li> </ul> </li> <li>[RDY] RECORD OPTIONS <sup>2</sup> <ul style="list-style-type: none"> <li>[0] REC ADV 30-IN             <ul style="list-style-type: none"> <li>0-255</li> </ul> </li> <li>[1] REC ADV 30-OUT             <ul style="list-style-type: none"> <li>0-255</li> </ul> </li> <li>[2] REC ADV 15-IN             <ul style="list-style-type: none"> <li>0-255</li> </ul> </li> <li>[3] REC ADV 15-OUT             <ul style="list-style-type: none"> <li>0-255</li> </ul> </li> <li>[4] REC ADV 7.5-IN             <ul style="list-style-type: none"> <li>0-255</li> </ul> </li> <li>[5] REC ADV 7.5-OUT             <ul style="list-style-type: none"> <li>0-255</li> </ul> </li> </ul> </li> </ul>	<p><b>[ROLLBACK, REH, REC] KEY OPTIONS <sup>3</sup></b></p> <ul style="list-style-type: none"> <li>[ROLLBACK] OR [0] ROLLBACK KEY             <ul style="list-style-type: none"> <li>[+/-] ROLLBACK</li> <li>PLAY-REV</li> </ul> </li> <li>[REH] OR [1] REHEARSE BY             <ul style="list-style-type: none"> <li>[+/-] PLAY+REH</li> <li>REH ONLY</li> </ul> </li> <li>[REC] OR [2] RECORD BY             <ul style="list-style-type: none"> <li>[+/-] PLAY+REC</li> <li>REC ONLY</li> </ul> </li> <li>[SYS] SYSTEM OPTIONS             <ul style="list-style-type: none"> <li>[0] LED BRIGHTNESS             <ul style="list-style-type: none"> <li>20%-100% (100%)</li> </ul> </li> <li>[1] DSPL CONTRAST             <ul style="list-style-type: none"> <li>30%-100% (70%)</li> </ul> </li> <li>[2] DSPL TIMEOUT             <ul style="list-style-type: none"> <li>OFF</li> <li>1 MIN</li> <li>5 MIN</li> <li>10 MIN</li> <li>20 MIN</li> <li>NEVER</li> </ul> </li> <li>[3] JOG SPEED             <ul style="list-style-type: none"> <li>1-10 (5)</li> </ul> </li> <li>[4] TRIM FRAME             <ul style="list-style-type: none"> <li>01-10 (01)</li> </ul> </li> <li>[5] TRIM SUBFRAME             <ul style="list-style-type: none"> <li>01-25 (01)</li> </ul> </li> <li>[6] PORT SELECT             <ul style="list-style-type: none"> <li>MAC: MIDI, 422:ES</li> <li>MAC: ES, 422:OFF</li> </ul> </li> <li>[TCG] TCG OPTIONS             <ul style="list-style-type: none"> <li>[0] SYSTEM REF             <ul style="list-style-type: none"> <li>INTFIX</li> <li>INTVAR</li> <li>EXTVID</li> <li>AUX</li> <li>VSO MASTER</li> <li>ACG</li> </ul> </li> <li>[1] SYSTEM SPD/CODE             <ul style="list-style-type: none"> <li>24 Hz/24</li> <li>25Hz/25 (PAL)</li> <li>29.97Hz/DF</li> <li>29.97Hz/30 (NTSC)</li> <li>30Hz/DF</li> <li>30Hz/30</li> </ul> </li> <li>[2] VARISPEED %             <ul style="list-style-type: none"> <li>87.5%-112.5% (100.00%)</li> <li>JOG/SHTL WHEEL = ±0.1%</li> <li>[+/-] = ±0.01%</li> </ul> </li> <li>[3] TCG GROUP MODE             <ul style="list-style-type: none"> <li>PLAY, RUN</li> <li>PLAY, MUTE</li> <li>PLAY, WIND</li> </ul> </li> <li>[4] TCG STILL MODE             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[5] AUX OUTPUT SEL             <ul style="list-style-type: none"> <li>PILOT</li> <li>RESHAPE 1</li> <li>RESHAPE 2</li> <li>RESHAPE 3</li> <li>GPI-2 BEEP</li> </ul> </li> <li>[6] VIDEO SYNC GEN             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> </ul> </li> </ul> </li></ul>	<p><b>[TRKS] TRACK OPTIONS</b></p> <ul style="list-style-type: none"> <li>[0] VIDEO TRACKS             <ul style="list-style-type: none"> <li>[+/-] SAFE</li> <li>READY</li> </ul> </li> <li>[1] VIDEO AUTO-RST             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[TRAN] MACHINE SELECT             <ul style="list-style-type: none"> <li>[LAST/NEXT] TRANSPORT MFGR</li> <li>[+/-] MACHINE MODEL</li> <li>[TRAN] TRAN OPTIONS <sup>2</sup> <ul style="list-style-type: none"> <li>[0] CAPSTAN MODE             <ul style="list-style-type: none"> <li>WILD</li> <li>RESOLVED</li> </ul> </li> <li>[1] CAPST SPD TRIM             <ul style="list-style-type: none"> <li>-128 TO +127 (0)</li> </ul> </li> <li>[2] LIFTER DEFEAT             <ul style="list-style-type: none"> <li>NEVER</li> <li>NORMAL</li> <li>NOT STP/PLAY</li> <li>ALWAYS</li> </ul> </li> <li>[3] RECORD IN             <ul style="list-style-type: none"> <li>PULSE REC</li> <li>P-REC,PLAY</li> </ul> </li> <li>[4] RECORD OUT             <ul style="list-style-type: none"> <li>PULSE PLAY</li> <li>P-REC, PLAY</li> <li>PULSE STOP</li> <li>P-REC,STOP</li> <li>P-PLAY,STOP</li> <li>PULSE OPTO</li> <li>SPECIAL OPTO</li> </ul> </li> <li>[5] REHEARSE IN             <ul style="list-style-type: none"> <li>LATCH REH</li> <li>PULSE REH</li> <li>P-REH,PLAY</li> <li>P-REH,RECLOG</li> <li>L-REH,RECLOG</li> <li>PULSE REC</li> </ul> </li> <li>[6] REHEARSE OUT             <ul style="list-style-type: none"> <li>UNLATCH REH</li> <li>PULSE REH</li> <li>SAVE AS REC</li> </ul> </li> <li>[7] APPROACH SPEED             <ul style="list-style-type: none"> <li>20-254</li> </ul> </li> <li>[8] BANDWIDTH LIMIT             <ul style="list-style-type: none"> <li>OFF</li> <li>ON</li> </ul> </li> <li>[9] READER MODE             <ul style="list-style-type: none"> <li>LTC/SER TC</li> <li>LTC/TT1</li> <li>SERIAL TC</li> <li>T.TIMER 1</li> </ul> </li> <li>[00] MUTE CONTROL             <ul style="list-style-type: none"> <li>NORMAL</li> <li>UNTIL RSLVED</li> <li>UNTIL LOCKED</li> <li>NOT LOCKED</li> </ul> </li> <li>[NEXT] LOCK THRESHOLD             <ul style="list-style-type: none"> <li>0-50 (35)</li> </ul> </li> <li>[NEXT] LOCK DELAY             <ul style="list-style-type: none"> <li>0-50 (10)</li> </ul> </li> <li>[NEXT] PARK WINDOW             <ul style="list-style-type: none"> <li>0-10 (10)</li> </ul> </li> </ul> </li> </ul> </li> </ul> <li>[F3] VITC OPTIONS             <ul style="list-style-type: none"> <li>[0] GROUP SELECT             <ul style="list-style-type: none"> <li>OFF</li> <li>A</li> <li>B</li> <li>C</li> </ul> </li> <li>[1] READER MODE             <ul style="list-style-type: none"> <li>AUTO</li> <li>FIXED</li> </ul> </li> </ul> </li>
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NOTE:  
 ALL KEYS ARE IN BRACKETS [ ].  
 FACTORY DEFAULTS ARE ITALICIZED.  
 1 PRESS EVENT KEY THEN DESIRED GPI NUMBER.  
 2 SELECT RDY OR TRAN, THEN MACHINE (A, B, OR C)  
 TO SETUP OPTIONS.  
 3 USE KEYS 0, 1, 2 ONLY AFTER FIRST SELECTION.

