

TimeSlate #TS001

TIMECODE CLAPPERBOARD / SLATE

Operation Manual v1.11

English



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INDEX

INDEX	2
SET UP	3
SWITCHING ON.....	3
SWITCHING OFF	3
MENU SYSTEM & BUTTONS.....	4
SETTING THE TIMECODE.....	5
SETTING THE USER-BITS	6
SETTING THE FRAME-RATE.....	7
SETTING THE JAM-LOCK OPTIONS.....	8
SETTING THE USER-BIT SOURCE OPTION	9
SETTING THE "STICKS-OPEN" TIME OUT OPTION	10
SETTING THE "STICKS-CLOSED" TIME OUT OPTION	11
SETTING THE FLASH DURATION.....	12
SETTING THE BRIGHTNESS OF THE FLASH.....	13
SETTING THE USER-BITS TIME OUT OPTION	14
SETTING THE FEED-ALERT DELAY	15
SETTING THE OFFSET	16
TCXO DIFFERENCE READOUT & ADJUSTMENT	17
POWER SUPPLY	19
TIMECODE INPUT – ALL MODELS.....	20

SET UP

Please read this manual carefully before using your TimeSlate.

SWITCHING ON

To switch the TimeSlate on:

Press & hold the **RED** push-button until the display shows:

TS001-01

The TimeSlate will now flash the lower right decimal point approximately every second to show that it is switched on.

SWITCHING OFF

Switching OFF the TimeSlate is deliberately convoluted, this is to prevent the accidental powering down of the unit.

Press & hold the **BLACK** push-button until the display shows:

SET TO

Use the **BLACK** push-button to increment through the menus until the display shows:

TURN OFF

Press the **BLUE** push-button to enter the menu, the display will show:

R U SURE

After approximately 2 seconds this will change to:

STAY ON

Press the **GREEN** push-button to change this to:

SHUT OFF

Press the **BLUE** push-button to switch off the TimeSlate, the display will briefly show (before switching off):

GOOD BYE

At any point you can cancel switching OFF the slate by either pressing the **BLACK** push-button or leaving the TimeSlate alone for 30 seconds.

MENU SYSTEM & BUTTONS

With the exception of display brightness all options on the TimeSlate are selected with the clapsticks closed and after holding the **BLACK** push-button down for around 2 seconds (this is done to prevent accidental operation).

In general the push-buttons have the following effect:

BLACK – changes menu being looked at.

BLUE – enter the menu OR select a different option to change

GREEN – change the value of the blinking option

RED – not used (with the exception of switching ON the TimeSlate)

The menu's are as follows:

Display shows:	Function:	Options:
SET TC	Sets timecode manually.	Sets timecode hours & minutes
USR BITS	Sets user bits manually.	Sets own user-bits display.
SET FPS	Set frame-rate.	23.976, 24, 25, 29.97, 30 fps, drop-frame and non dropframe.
J-LOC	Set jam-lock options.	Lock on, lock off & slaved to external timecode
UB SRC	Sets user bits source.	Local or external jam source.
00 T-OUT	Sets 'sticks-open' timeout	5,15,30,60,120 seconds, no timeout
00 T-OUT	Sets 'sticks-closed' timeout	5, 15, 30, 60 & 120 seconds.
FLASH	Sets flash duration	0-5 frames
INTENS	Sets flash intensity	0-9
UB T-OUT	Sets user bits timeout	1-5 frames, 1-5 seconds
FEEDALRT	Sets feed alert delay	2-12 hrs, no feedalert
OFFSET	Sets number of frames the display is offset.	-3 to +3 frames
TURN OFF	Switches OFF the TimeSlate	
CAL OSC	Calibrate the TCXO, read out the current error.	Reads from -9.9 to +9.9 PPM.

BLINKING OPTIONS

Generally any blinking text may be changed by pressing the **GREEN** push-button

SETTING THE TIMECODE

The TimeSlate timecode can be manually set:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

SET TC

Press the **BLUE** push-button to enter the menu, the display will show the time to be set (hrs:tens will flash):

00:00 SET

Press the **GREEN** push-button to set the hrs:tens or the **BLUE** push-button to select the hrs:units, mins:tens or mins:units, example:

1 5:35 SET

When you have the correct time set press the **BLUE** push-button until **SET** flashes, then press the **GREEN** button.

The timecode will now start running and will show on the display for 11 seconds.

Exit this menu by setting the time, pressing the **BLACK** push-button or by leaving the TimeSlate for 2 minutes.

NOTE:

If you coincide pressing the **GREEN** button to start the timecode with change to a new minute it is possible to get the TimeSlate to show the correct time within a few frames.

SETTING THE USER-BITS

The TimeSlate user-bits can be manually set:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

USR BITS

Press the **BLUE** push-button to enter the menu, the display will show the current user bits (and the left hand user bit will flash) example:

25-12-05

Press the **GREEN** push-button to increase the user-bit value or the **BLUE** push-button to select the next user-bit to alter.

Characters available are:

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

A, B, C, D, E, F, -

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate for 30 seconds.

SETTING THE FRAME-RATE

The TimeSlate will operate at five different frame-rates, with the option of engaging drop-frame counting for each different frame-rate. These are 23.976, 24, 25, 29.97 and 30 frames per second.

To set the frame-rate:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

SET FPS

Press the **BLUE** push-button to enter the menu, the display will now flash the current frame-rate.

Press the **GREEN** push-button to select the correct frame-rate and drop-frame option these are:

23.976
24.000
25.000
29.970
30.000
23.976 DF
24.000 DF
25.000 DF
29.970 DF
30.000 DF

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate for 30 seconds.

The new frame-rate and drop-frame option will be used only once you have exited the menu.

SETTING THE JAM-LOCK OPTIONS

The TimeSlate has three different JAM-LOCK options, these are:

JAM-LOCK OFF

The TimeSlate will start counting as soon it is powered up. The TimeSlate may-be jammed to external timecode, left to free-run or set to time-of-day.

JAM-LOCK ON

The TimeSlate will only start counting when it has been jammed to an external timecode source.

SLAVED

The TimeSlate will only display what is sent to it via external timecode. If the timecode is removed the display will freeze on the last known value.

To set the jam-lock mode:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

J-LOC

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

LOC OFF

LOC ON

TC SLAVE

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE USER-BIT SOURCE OPTION

The TimeSlate has two different USER-BIT SOURCE options, these are:

TC IN

User-bits are taken from the external jam source, these will overwrite any user-bits currently held in memory. Only numeric characters are decoded.

LOCAL

User-bits are NOT taken from the external jam source. The user-bits can be manually altered by the operator and will not be overwritten.

To set the user-bit source option:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

UB SRC

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

UB=TCIN

UB=LOCAL

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE "STICKS-OPEN" TIME OUT OPTION

Sets the length of time the clapsticks may be opened for before the display is turned off. There is also the option to select 'no timeout'.

To set the sticks-open time out:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

00 T-OUT

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

NO T-OUT

5 SECS

15 SECS

30 SECS

60 SECS

120 SECS

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE "STICKS-CLOSED" TIME OUT OPTION

Sets the length of time the last clap value is shown on the display.

To set the sticks-closed time out:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

00 T-OUT

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

5 SECS

15 SECS

30 SECS

60 SECS

120 SECS

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE FLASH DURATION

Sets the number of frames that the display increased brightness will be held by when the clapsticks are shut. Setting this to "0 FRAMES" will mean that the display will immediately show the user-bits upon the clapsticks shutting.

To set the flash duration:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

FLASH

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

0 FRAMES

1 FRAME

2 FRAMES

3 FRAMES

4 FRAMES

5 FRAMES

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE BRIGHTNESS OF THE FLASH

Sets the temporary increase in display brightness when the clapsticks are shut. Setting this to "0 FRAMES" will mean that the display will immediately show the user-bits upon the clapsticks shutting. When set to "BRIGHT=0" there is no increase in brightness.

To set the flash brightness:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

INTENS

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

BRIGHT=0

BRIGHT=1

BRIGHT=2

BRIGHT=3

BRIGHT=4

BRIGHT=5

BRIGHT=6

BRIGHT=7

BRIGHT=8

BRIGHT=9

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE USER-BITS TIME OUT OPTION

Sets the length of time the last clap value is shown on the display.

To set the user-bits time out:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

UB T-OUT

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

1 FRAME

2 FRAMES

3 FRAMES

4 FRAMES

5 FRAMES

1 SECS

2 SECS

5 SECS

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

SETTING THE FEED-ALERT DELAY

Sets the length of time between "jamming" reminders. If the feed-alert timer elapses it will flash **-FEEDAL-** on the display approximately every 5 seconds, this will also be displayed prior to the user-bits after the clapsticks are shut.

To set the feed-alert delay:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

FEEDALRT

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

NO T-OUT

2 HOURS

4 HOURS

6 HOURS

8 HOURS

10 HOURS

12 HOURS

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

NOTES

If external timecode is left permanently connected to the TimeSlate and the feed-alert timer elapses the TimeSlate will automatically re-jam to the external timecode source.

SETTING THE OFFSET

Sets the number of frames that the timecode is offset by. The internal timecode counter is unaffected by the this offset, only the display is altered.

To set the frame offset duration:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

OFFSET

Press the **BLUE** push-button to enter the menu, the display will now flash the current option.

Press the **GREEN** push-button to select the correct option, these are:

NOADDSUB

ADD 1 FR

ADD 2 FR

ADD 3 FR

SUB 3 FR

SUB 2 FR

SUB 1 FR

Exit this menu by pressing the **BLACK** push-button or by leaving the TimeSlate alone for 30 seconds.

TCXO DIFFERENCE READOUT & ADJUSTMENT

The TimeSlate contains a Temperature Controlled Crystal Oscillator. This may be adjusted to match the master timecode source. When capturing the TCXO difference the display will show

To "capture" the current TCXO difference:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

CAL OSC

Press the **BLUE** push-button to enter the menu, the display will now show the current calibration value (e.g. 45F):

45F GET

Press the **BLUE** push-button again, the display will now flash the word "GET" or the results of the previous "capture".

Press the **GREEN** push-button to initiate a "capture", the display will go blank for about 10 seconds and then show (e.g. -0.4ppm):

45F -0.4

To repeat the "capture" press the **GREEN** push-button again.

Exit this menu by pressing the **BLACK** push-button.

NOTE

If the "capture" value is below -9.9 PPM the display will show **UR** (under range), if the value is above 9.9 PPM the display will show **OR** (over range).

To adjust the TCXO:

Press & hold the **BLACK** push-button until the menu system is entered, use the **BLACK** push-button to increment through the menus until the display shows:

CAL OSC

Press the **BLUE** push-button to enter the menu, the display will now show the current calibration value (e.g. 45F):

45F GET

Press the **BLUE** push-button until the digit you wish to change flashes.

Press the **GREEN** push-button to increment the digit. Counting is carried out in hexadecimal (base 16).

Exit this menu by pressing the **BLACK** push-button.

NOTES

Before adjusting your TCXO it is a good idea to write down your current calibration value.

If the timecode source is at a low level or has significant jitter (i.e. from a radio link) you should average the results of several "capture" operations. If the results vary by more than 0.5PPM your source level is too low or the jitter is too high.

The "capture" operation will only work with 24, 25 and 30 frames per second. It is important to set the TimeSlate frame-rate to match that of the incoming timecode.

Existing timecode counting will stop when "capturing" the difference, it is important to re-jam after adjusting the TCXO.

TCXO adjustment is in very fine increments (<0.1PPM) and you may not see the effect of a slight increase or decrease.

POWER SUPPLY

The TimeSlate requires 6x AA cells, these are also known as R6 and MN1500 cells (sometimes RX6, LR6, MX1500, etc...)

Typical current drain while switched ON is 0.04A, when set to maximum brightness and with the display ON (i.e. clapsticks open) current drain will rise to around 1A.

CELL TYPES

We recommend using rechargeable high-capacity AA NiMh (nickel metal hydride) cells in your TimeSlate.

If using alkaline cells we recommend using DURACELL ULTRA M3 cells because of their high-current delivery.

LOW BATTERY

Once the battery voltage goes below 6.9 volts it will be shown every time the clapsticks are opened (example):

BATT 6.5

Typical accuracy is 0.2V however we do not guarantee this.

NOTE

The TimeSlate contains a reverse polarity protection diode.

TIMECODE INPUT – ALL MODELS

Three pole 3.5mm jack connectors are used to connect to external LTC timecode into the TimeSlate.

Mating connector details:

	Description	Part#
Mating plug:	3.5mm TRS (stereo)	n/a
Collet size:	n/a	n/a
Strain relief colour:	n/a	n/a

Mating connector pin out:

Pin#	Description	Notes
1 <i>TIP</i>	HOT	Balanced audio
2 <i>RING</i>	COLD	Balanced audio
3 <i>SLEEVE</i>	GROUND	Ground

! CAUTION: Do not exceed 10V RMS.

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