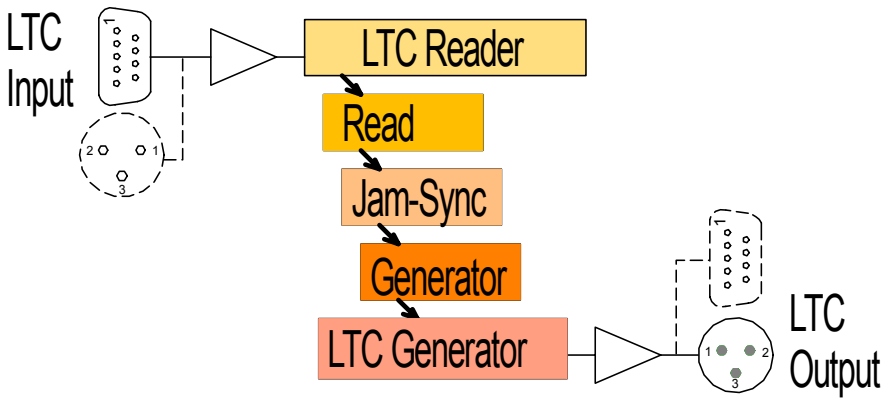
Revision: 2 / May 05, 2011

The following description walks you through the installation and the basic set-up process for your special application of an **AT** or **DT** or **HT** or **XT** Rubidium module:

LTC Regeneration

LTC to LTC Converter



Select the module according to the video standard you are using:

AT: Analogue video (CVBS).
DT: SD digital video.
HT: HD or SD digital video.
XT: 3G or HD or SD digital video.

One XLR connector can be assembled: Either an XLR female connector for LTC input or an XLR male connector for LTC output.

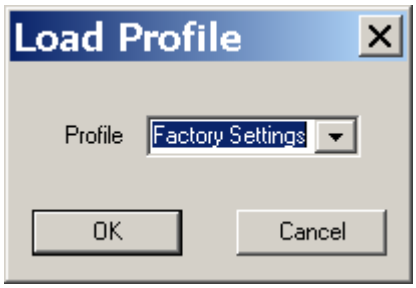
Likewise, LTC can be received at the DSUB9 connector GPI/LTC IN; and LTC output is present at the DSUB9 connector SERIAL/LTC OUT.

Please refer to manual for pin assignment.

Step 1:

Load Factory Settings: Preset a Basic Configuration

Activate the **Profile** page and select: Profile: **Factory Settings**
Click on the **OK** button.

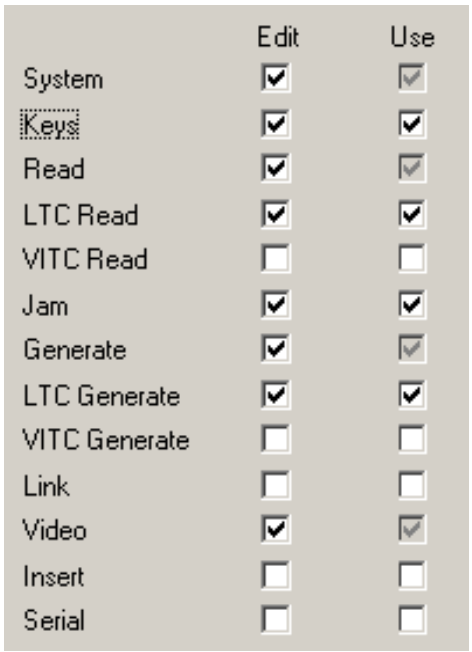


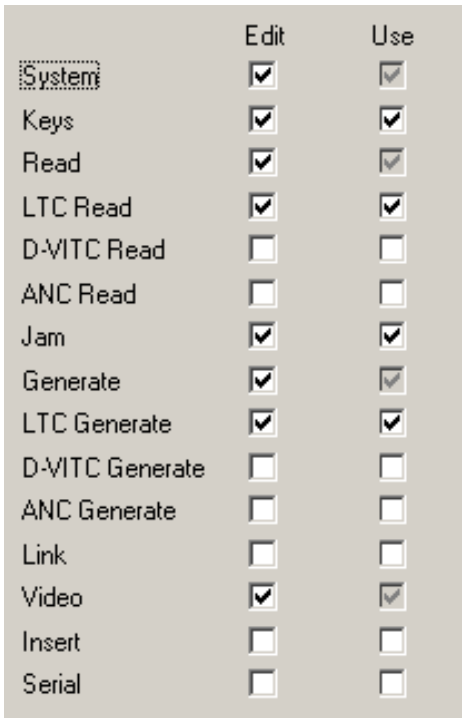
Step 2:

Activate/Deactivate Functions

Activate the “Functions” page and **activate/deactivate** as shown:

RUB AT	RUB DT, RUB HT, RUB XT





- We suggest that you deactivate the **Use** check-boxes of all functions you are presently not using.
- We suggest that you deactivate the **Edit** check-boxes of all functions after the installation process. That avoids unintentional operating and malfunctions.

Step 3:

LTC Time Code Reader Configuration

Activate the **LTC Read** page and select:

Frame Rate: If you have always the same frame rate at the input (24/25/30/30 drop), please fix it accordingly. Frame rate of time code input should be equal to the frame rate of time code output and equal to the picture rate of the video signal – if you are working with television signals. If you are working with different video formats (NTSC, PAL), select “Auto”, in this case the frame rate of the incoming LTC will be detected automatically.

Step 4:

Time Code Reader Configuration

Activate the **Read** page and select:

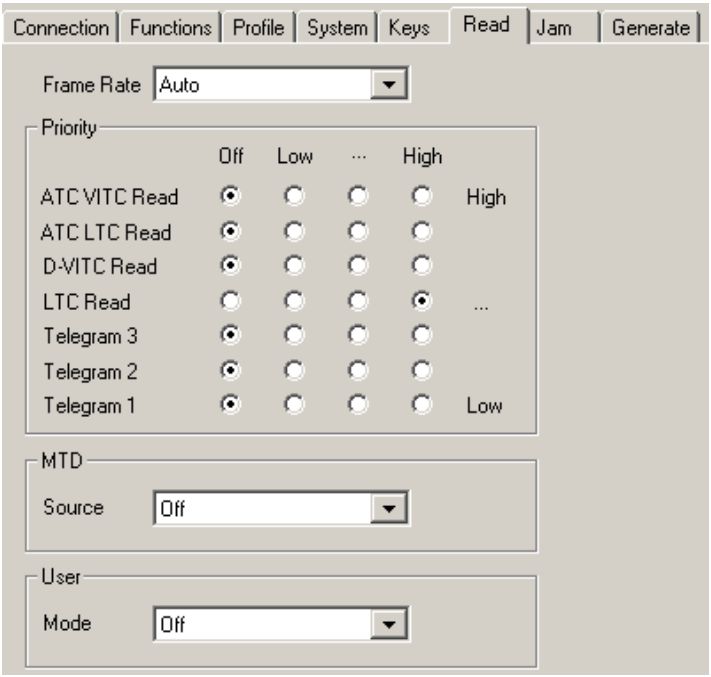
Frame Rate: If you have always the same frame rate at the input (24/25/30/30 drop), please fix it accordingly. Frame rate of time code input should be equal to the frame rate of time code output and equal to the picture rate of the video signal – if you are working with television signals. If you are working with different video formats (NTSC, PAL), select “Auto”, in this case the frame rate of the incoming time code will be detected automatically.

Priority: All “Off” except “LTC Read = High”.

MTD: “Source = Off”.

User: “Mode = Off”.

Example for DT/HT/XT modules:



Step 5:

Set Sync Mode and Frame Rate of the Time Code Generator

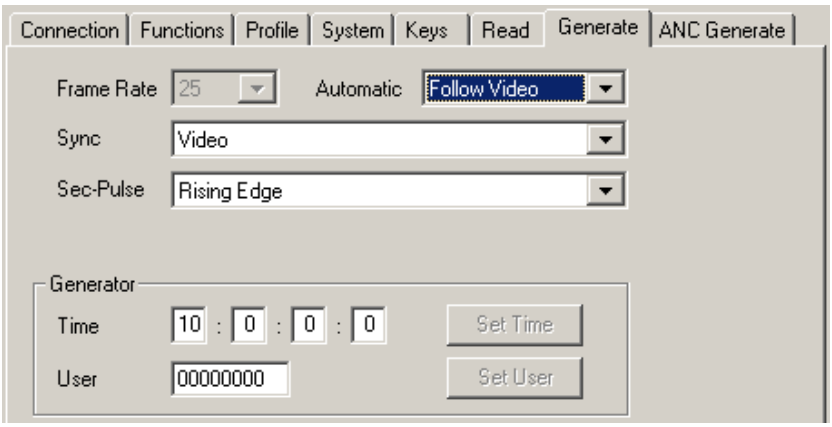
Activate the **Generate** page and select:

Frame Rate: If you are working with one frame rate only, please fix it accordingly. Frame rate of time code output should be equal to the picture rate of the video signal – if you are working with television signals.

DT/HT/XT modules only: If you are working with different video formats, select "Follow Video"; in this case the frame rate of the time code output will follow the picture rate of the video.

Sync: It is recommended to select "**Sync = Video**" if you are working with television signals. Otherwise, select "**Sync = LTC Read**".

Example for DT/HT/XT modules:



Step 6:

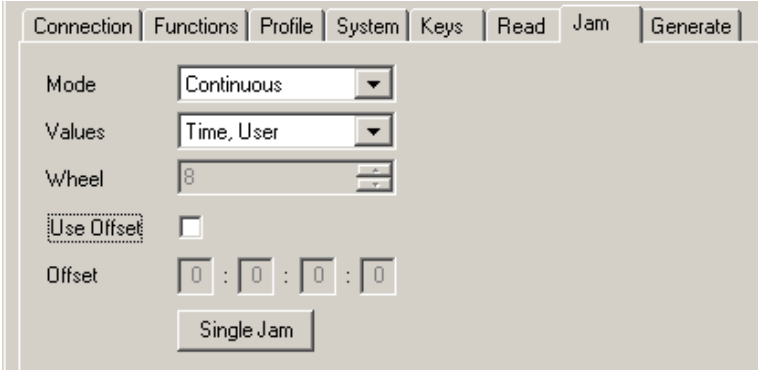
Activate the Jam-Sync Mode

Activate the **Jam** page and select:

Mode: "Continuous" - if the time addresses of the LTC output should continuously be generated in an up-counting manner.
"Cont. 1 Frame" or "Cont. Wheel" - if the LTC output time should stop in case of an LTC input failure or in case of a "still" time code input.

Values: "Time, User".

Use Offset: Not activated – unless you explicitly have to do an offset correction.

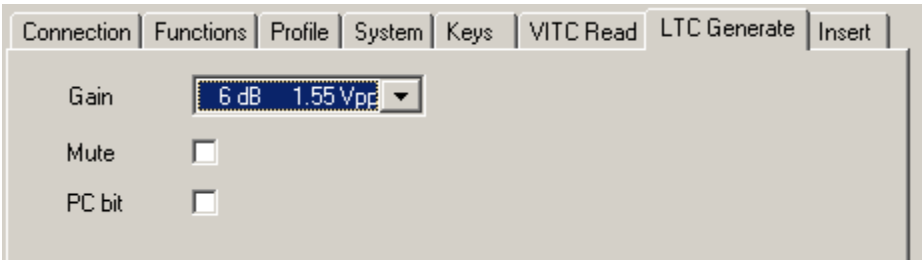


Step 7:

Set/Verify the LTC Output Gain

SMPTE 12M-1 recommendation:

The preferred output amplitude (gain) is between 1 V and 2 V peak-to-peak.



Step 8:

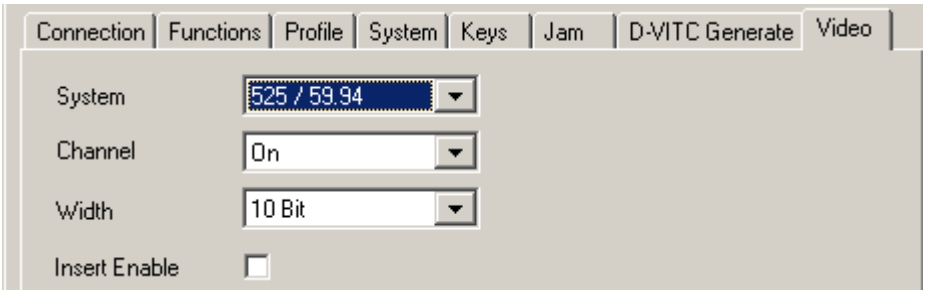
Configuration of the Video Channel

Activate the **Video** page and select:

System: Fix it according to your application.

DT/HT/XT modules only: If you are working with different video formats, select “Auto”.

Insert Enable: Check this box only in case you want to have a visible window inserted onto the video screen.



Step 9:

Optionally: Select LED Functions to Watch Status Information

Activate the **Keys** page and select:

LED SIGNAL: “Gen Sync Status” indicates the status of the video synchronization:
LED lights up during video lock.
LED flashes slowly during the fine trim procedure.
LED flashes fast if video synchronization is lost.

LED SET: “Jam” indicates the status of the Jam-Sync mode:
LED lights up = Generator accepts reader input time code.
LED flashes = Generator does not accept or receive the reader time code.