

ADREM

TIME CODE GPS WIRELESS SOLUTIONS
HIGH SPEED OPTICAL NETWORKING

www.adrem-solutions.com

TC 1



User Guide

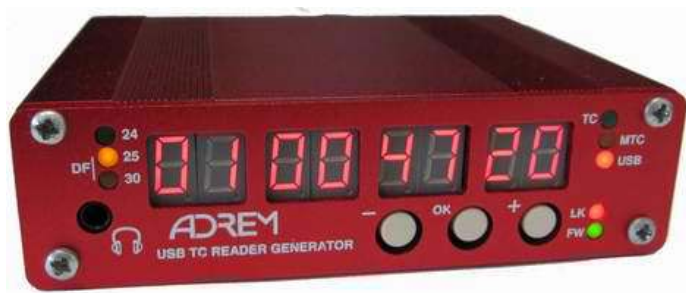
USB TIME CODE READER / GENERATOR

SMPTE to MTC / MTC to SMPTE

MMC / AUDIO Input/Output

Adrem TC 1 – Time Code Unit.
Version 1.0

FRONT PANEL



REAR PANEL



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1. Introduction

The Adrem TC1 unit is a small compact time code reader / generator supporting SMPTE / MIDI time codes and converts between both formats in real-time. Connection by USB to a PC / Mac for advanced control using the timecode control software. Whether standalone or PC / Mac controlled, the TC1 is a perfect mini time code solution.

Features :

- USB 2.0 TIME CODE device
- Plug & Play USB device
- No drivers needed for XP Vista W7 MAC OS
- Read Time Code (TC) from USB & convert to LTC and MTC
- Read Time Code (TC) from LTC (RCA LTC IN) & convert to USB and MTC
- Read Time Code (TC) from MTC (Midi IN) & convert to USB and LTC
- Read / Generate 24fps, 25fps, 30fps(NDF), 30fps(DF)

- LTC INPUT range -10dB to +5dB
- LTC OUTPUT 0dB
- OUTPUT IS ALWAYS REGENERATE (At Input Frames rate)
- Audio INPUT (RCA Audio IN) links to 1/8th Head phone jack

- Stand alone Time Code reader (LTC / MTC)
- Stand alone Time Code generator (LTC / MTC)
- MTC to LTC real time converter
- LTC to MTC real time converter
- MMC support IN / OUT

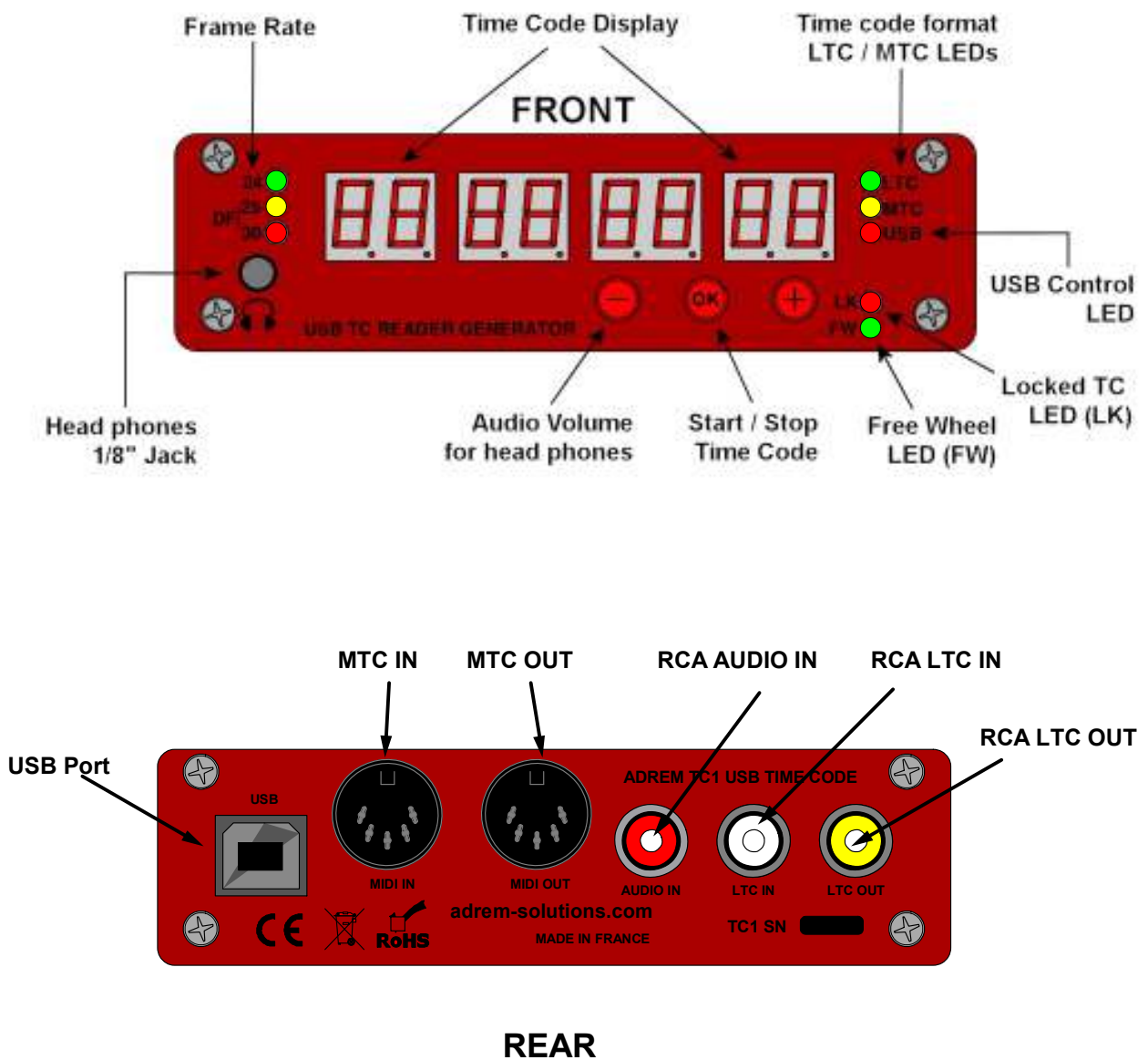
- 3 x RCA sockets - LTC IN / LTC OUT / AUDIO IN
- 2 x Midi-Din sockets MIDI & MTC IN / MIDI & MTC OUT
- 1 x USB (power and advanced control)

- Powered by USB port from a PC / Mac
- Standalone USB power supply (recommend 5V 400mA not included)
- timecode control software for the TC1 by Adrem-SOLUTIONS
- Standard USB cable 3.5m provided

- RCA to 1/8th Jack 3.5m provided
- Red anodized aluminum box 80mm X 108mm X 30mm
- Weight unpacked 0.15Kg

2. Installation / Setup

Plug the 3.5m USB cable into the TC1 unit and the other end into a PC / Mac USB port. Power will now be supplied to the TC1 unit and the LED's and Time Code display will illuminate. The computer will then automatically install the drivers necessary to use TC1 unit. Once the TC1 unit has successfully been installed the TC1 unit will appear all midi and smpte software setup menus as input and output sources / devices.



3. Configurations

STANDALONE MODE

1. Power the TC1 unit by an external USB power source
2. Connect LTC cable to the LTC IN (RCA) socket
3. Run time code from source through LTC cable
4. TC should be running on the TC1's display and the frame rate and LK lights should be ON, LTC LED should also be ON.
5. Stop time code from source
6. TC should now stop running on the display
7. TC does not stop see Note below.
8. The OK button can be used at any time to Start and Stop generating TC

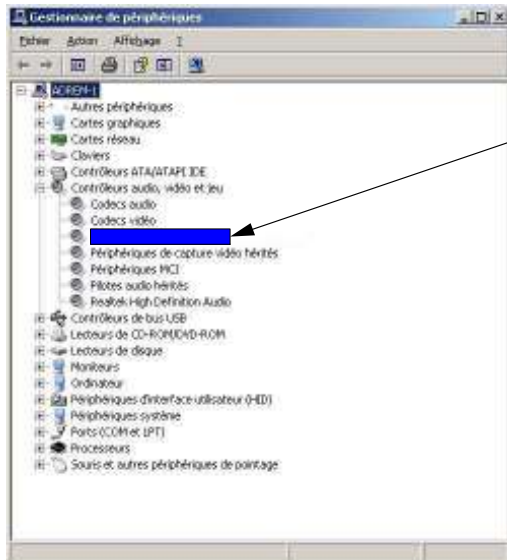
Note:

TC1 configuration software can be used to set start-up time code values, frame rate (24, 25, 30fps) and whether the unit should support Free Wheel or not. If Free Wheel is selected and the TC1 unit loses time code it will continue on its own until time code is re-established and locked again. The Free Wheel indicator is the FW LED on the front of the TC1 unit.

PC / MAC CONTROL MODE

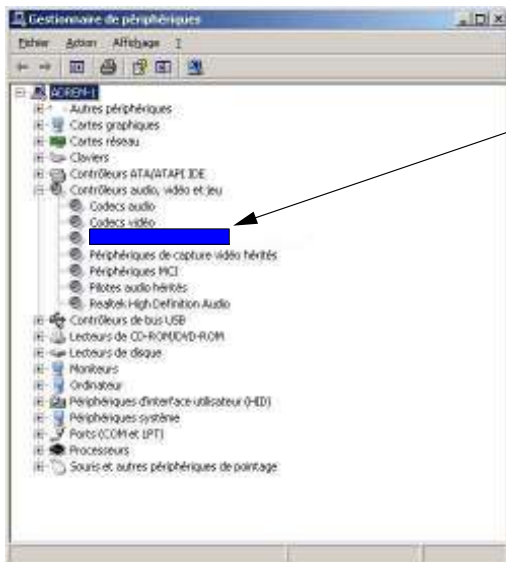
1. Power the TC1 unit by USB to a PC / Mac
2. TC1 unit will now be installed for varying control softwares to access
3. Connect LTC cable to the LTC IN (RCA) socket
4. Run time code from source through LTC cable
5. TC should be running on the TC1's display and the frame rate and LK lights should be ON, LTC LED should also be ON.
6. Run the timecode control software
7. Select and configure the TC1 unit in settings
8. Presets times - can be set and used for triggering different time code start points
9. When connected to timecode software the USB LED will be lit
10. Disconnect the timecode software
11. Open any smpte or midi control software and configure to use the TC1 unit for time code and midi controls

Windows Device manager XP



Audio USB Device

Windows Device manager W7



ADREM TC1A

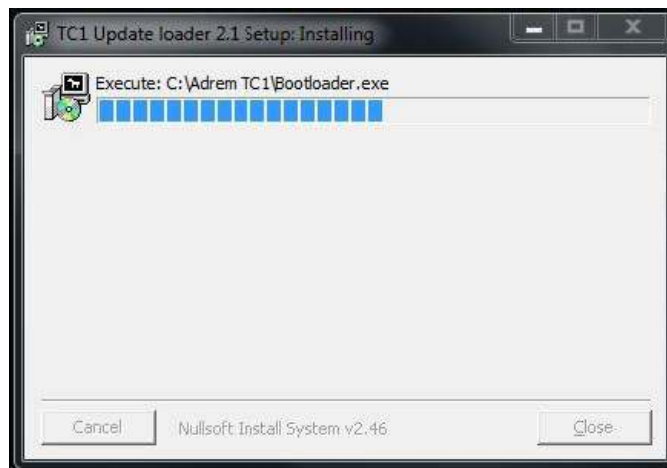
Tested with:
 Médialon
 Pangolin Laser software
 SUN LIGHT DMX software
 Pro Tools LE / HD
 Cubase / Nuendo
 Logic Pro
 Digital Performer
 Studio One
 Samplitude
 Clockwork

4. Advanced Controls

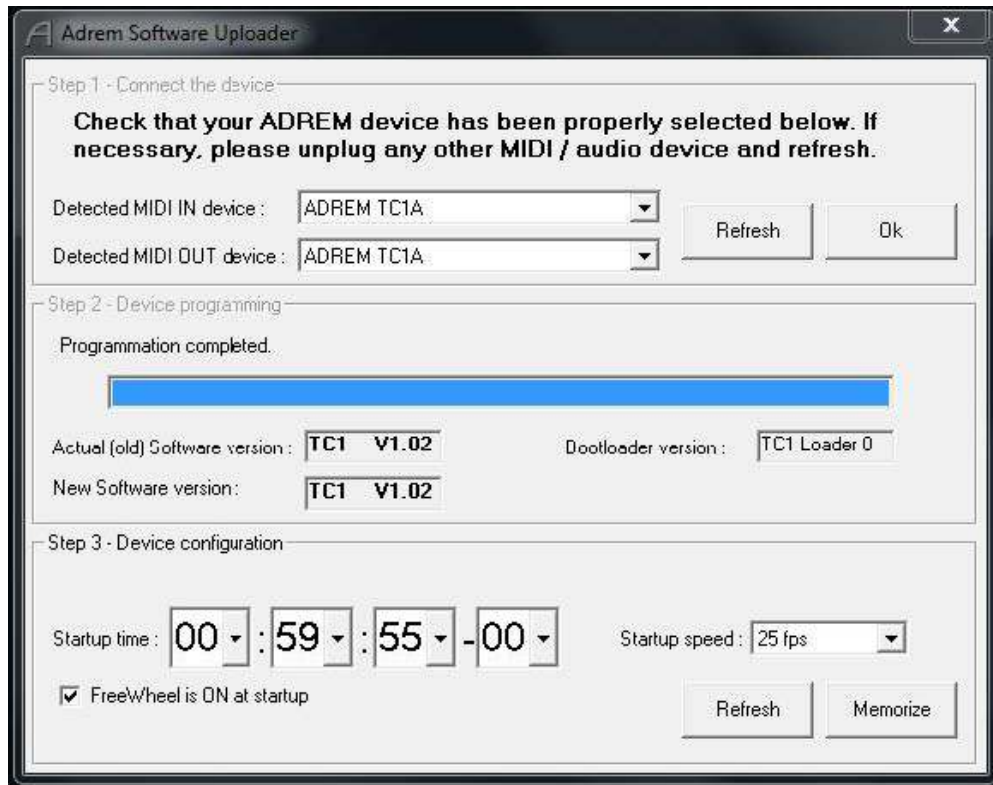
4.1 Configuring firmware and hardware configuration

<http://www.adrem-solutions.com/fr/solution-time-code-tc1/1-time-code-tc1.html>

Connect the TC1 unit by USB and run ADREM TC V1-02.exe



1. Figure 1 will be displayed
2. Figure 2 below will pop up after a few seconds
3. In the top 2 menu selections choose ADREM TC1A for both IN / OUT devices
4. Click refresh if you do not see the unit, unplug and plug back in, refresh again.
5. Click OK and the TC1 V1-02 firmware will upload to the TC1 unit.
6. Select Startup Time for the TC1 unit
7. Free Wheel ON at startup means if timecode is lost the unit will free wheel
8. Startup speed is the frame rate desired. 24Fps, 25fps, 30fps, 30fps(DF)
9. Click Memorise to complete the set up configuration
10. When prompted cycle the power to the unit as a reboot is required after a firmware update
11. On restart the TC1 should display your preferred start time code and the chosen frame rate selected. FW LED maybe ON or OFF depending on the selection made.
12. Press the OK button on the TC1 units front panel to run / stop time code
13. Figure 3 shows the TC1 unit directly after a reboot and firmware configuration

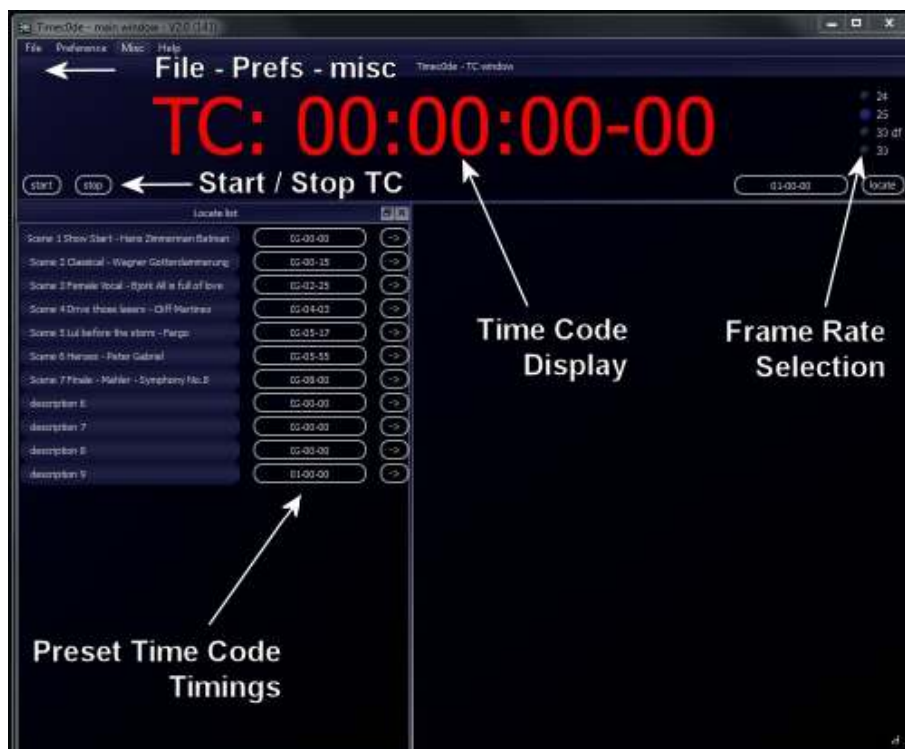


4.2 Timec0de control software

1. Contact ADREM-SOLUTIONS if you do not have the "timec0de-inst_141.exe" file
Or MAC OS version
2. Connect the TC1 unit by USB and run ADREM TC V1-02.exe
3. The timec0de software will now install
4. When installation is complete double click on the timec0de short cut that was created on the desktop



5. Timec0de main control window now opens (figure 4)



File Pref's Misc : Import and save files, setup preferences and device settings, miscellaneous options and help file access

Start / Stop TC : Starts TC from Locate point selected or last TC position

Frame Rate Sel : 24, 25, 30 ,30DF. Click the radio button to select format required

Preset TC Timings : Program presets / cues with name and time code settings
 Importation of HTML configuration files supported

Time Code Display :Docked or undocked Time Code display screen. Full screen with TIME:TC:HH:MM:SS:FR selectable

The Timecode control program can be used for many different purposes. Cueing Time code for shows and events, live performances and pre-programmed spectaculars. Designed for the show callers and stage managers giving them total control of any production. Running an external monitor for dedicated Time Code display which also makes the Timecode software the Master player for total control of all time code operated equipment.

TC1 accepts several MMC (midi machine control)

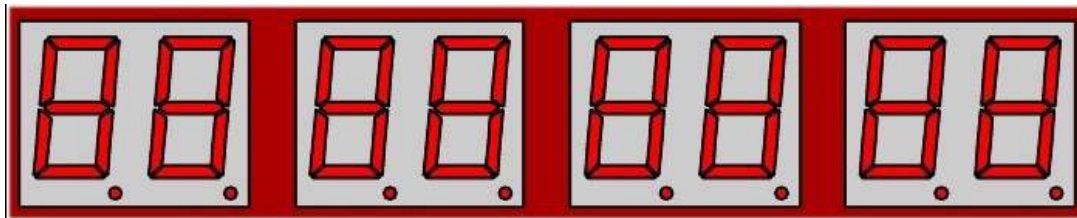
Command Description

F0 7F 7F 06 01 F7	MMC "stop" stops the generator
F0 7F 7F 06 02 F7	MMC "play" starts the time code generator
F0 7F 7F 06 44 06 01 hrmn sc fr ff F7	MMC "locate"

MTC

Quater frame (IN and OUT)
 Full MTC Message (IN and OUT Full message when Time code is stopped)

5 Appendix5.1 Features



TIME CODE DISPLAY CLOCK

	24 frames per second Film standard		Start and stop running.
	25 frames European PAL		Lock LED - Illuminates when the Time code source is good and locks the light on
	30 frames per second American standard NTSC		Free wheel LED If Time code is lost then the TC1 unit will free wheel TC till returned
	30 DF frames per second American standard		LTC LED - Indicates if LTC is source
	Headphone jack socket 1/8" jack		MTC LED - Indicates if MTC is source
	Volume control DECREASE		USB LED - Indicates if USB is connected and in control
	Volume control INCREASE		

5.2 Typical Setup

You can play a soundtrack with 1 track with show soundtrack and 2 with Time Code track
Time Code Synchronization (Output regenerate for a desk)
Audio track for a headset Jack plug on front panel in both ears (mono) volume adjustable.



5.3 Accessories & other products

TC1 rack-mount kit

This rack mount plate is 19" and 1U in height. Perfect for mounting the TC1 unit inside a rack in the standard way.



TC1 rubber shoes (protection)

Rubber shoes that fix on to the ends of the TC1 unit giving added protection and grip.





Declaration of Conformity

Adrem
64 rue Bourdignon
94100 SAINT MAUR

confirm that the product:
Type: Audio and Time code Reader Generator
Model: TC1A

meets the requirements of the council of the European communities
relating to electromagnetic compatibility (Council Directiv89/336/EEC)

Technical Data: CENELEC EN 50 081-1 1/1992
CENELEC EN 50 082-1 1/1992

The CE symbol is awarded to high-quality appliances which comply
with the European Directive 89/336/EEC or the EMVG (law relating
to electromagnetic compatibility of appliances) and which offer the
following significant benefits:

- *Simultaneous and interference-free operation of adjoining
appliances
- *No unpermitted interference signals
- *High resistance to electro-smog

6. Contact / Support

info@adrem-solutions.com

<http://www.adrem-solutions.com/en/>