

Timecode Buddy[®]: system



quickstart guide



Timecode
Buddy[®]
:mini trx





Welcome to **Timecode Buddy**. Here we give you a quick tour of your new **Timecode Buddy: system**, guiding you through its key features so you can get up and running straight away.

What's covered?

The basics to getting started with:

- **Timecode Buddy: mini trx**

Your timecode revolution starts here...

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The 'Timecode Buddy' logo is a registered trademark.

The 'Timecode Buddy: app' logo is a registered trademark.

The invention of the Timecode Buddy: system has a US Patent Pending.



Timecode Buddy® :mini trx

A guided tour of your highly accurate timecode, TV sync generator and multi-channel digital timecode transceiver.

Control

The **Timecode Buddy: mini trx** settings are accessed and controlled using the control knob and LCD display.

1.Halo lightpipe

Glowes either blue, green or red.

- Blue flash – T/C free running
- Green flash – T/C locked
- Red flash – Warning messages



2.Antenna

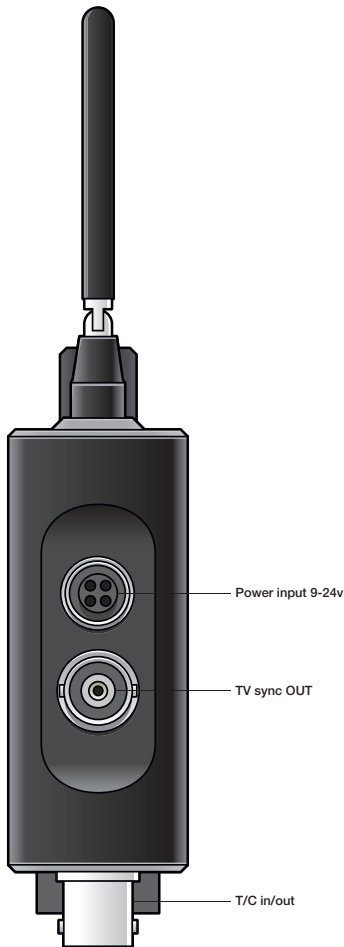
For the digital transceiver module

3.LCD backlit display

Shows the unit's status and settings.

4.Control knob

Allows one finger navigation through menus.



1. T/C in / out

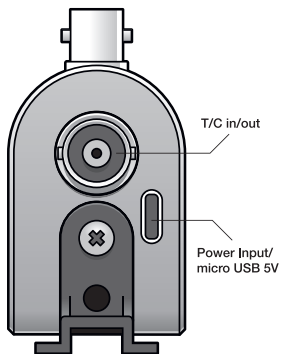
SMPTE Timecode OUT, BNC socket (LINE/LOW/MIC LEVEL)
SMPTE Timecode IN, BNC socket (0.5V to 5V p/p)

2. TV Sync out

TV Sync OUT, BNC socket (1V p/p)

3. Power input

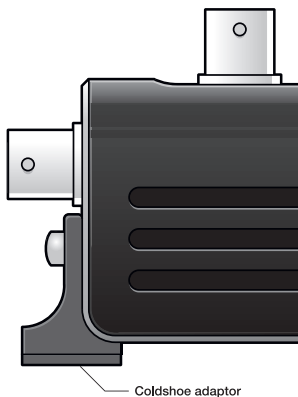
Hirose HR10a power socket
Power input 9-24 volt and micro USB 5 volt



Attach

Securely fit your **Timecode Buddy: mini trx** to a camera using the coldshoe adaptor.

This can be inserted into a **Timecode Buddy:** bracket or directly onto a camera coldshoe mount.



Customise

On-screen menus allow you to easily customise the settings of the **Timecode Buddy: mini trx** to meet the exact needs of your shoot. The default display shows (on time-out also):

T/C + FPS + MODE + RF CHANNEL + SIGNAL STRENGTH

Turning the knob on the top panel clockwise takes you to the **information screens:**

1. T/C + USER BITS
2. TV SYNC TYPE
3. POWER STATUS (external PSU or internal Li Polymer battery)
4. Firmware version and Serial number
5. Jam Timecode**

**For Jam Timecode option the unit needs to be in INTERNAL GENERATOR mode. Press the button whilst on 'Jam Timecode' screen. Choose to Jam via RF or BNC. If a valid T/C source is available the unit displays 'Jamming LTC', then either 'Timecode Jammed' or 'Jam failed, no signal'.

Button basics

The top button makes it easy to navigate the menu options.

From an information screen...

Press the knob to go directly to the menu for the corresponding feature.

From the default display...

Press the knob to enter the menu for:

1. Timecode mode
2. Int generator
3. RF Settings
4. Backlight
5. System settings
6. Exit

More on menus

Each menu allows further customisation of your **Timecode Buddy: mini trx**.

Timecode mode. Choose from three settings:

- **Int Gen.** Activates the highly accurate internal generator. From here you can set your own T/C, user bits and FPS settings. You can also jam from an external RF or BNC T/C source.
- **Ext RF (cont).** Constantly jam syncs the internal generator from the received T/C via Buddy DataLink. If Buddy loses signal of received T/C, the T/C output continues using the internal generator.
- **Ext BNC.** Constantly jam syncs the internal generator from the received T/C via the BNC I/P socket . If Buddy loses signal of received T/C, the T/C output freezes immediately.

Internal generator. Choose from:

- **Set timecode.** Turn to set flashing digits, press to enter, repeat for each pair.
- **Set user bits.** Turn to set flashing digits, press to enter, repeat for each pair.
- **Set FPS.** Set to 23.98, 24, 25, 29.976, 29.976DF, 30 or 30DF.

RF settings. From here select:

- **Channel no.** 1 to 14
- **RF TX On/Off.** When in Internal or BNC modes the Timecode Buddy: mini trx can transmit SMPTE timecode data via Buddy DataLink to any other Timecode Buddy: wifi master or mini: trx listening on the same channel.
- **Rx Ubits On/Off.** When Off the User Bits are derived from the unit itself, not the incoming LTC

Backlight.

- Always ON
- Timed ON
- Always OFF

System settings.

Gives you access to:

- **Set TV sync type.** Set to OFF, PAL, NTSC, 720p, 720px2, 1080i, 1080p, 1080px2 (x2 double frame rate). Non-standard TC Sync standards and FPS combinations will be automatically rejected.
- **Set TV sync level.** Set to standard o/p level for 1 camera and HIGH o/p level for dual load (BNC splitter on 3D camera rigs)
- **Set LTC output level.** Set to LINE Level (normal), LOW level and MIC level.
- **Set country area CE/FCC/ARIB**
- **Restore defaults.** To remove any customisation.
- **BuddyLink ID.** For future networking features.
- **Display.** Adjust brightness from 0-100% and flip upside down for left/right handed use.

Update firmware via a PC:

Visit www.timecodebuddy.com/support and click on the link for 'mini trx Firmware'. Follow the detailed online instructions to update your Timecode Buddy: mini trx using the micro USB port.

Detailed specifications

Timecode Buddy: **mini trx**

Product features

External dimensions: 29.8mm x 87mm x 110mm

LCD display: two line, 16 character, blue variable brightness backlit display.

Antenna 'halo' lightpipe: tri-colour LED (blue/green/red).

Technical specification

Timecode generator accuracy: 0.16 ppm TCXO reference oscillator (less than one half frame drift a day when free running).

Supported FPS modes: 23.98, 24, 25, 29.97, 30, 29.97DF, 30DF.

Output sync modes: PAL, NTSC, 720p, 720p double frame, 1080i, 1080p, 1080p double frame.

Output video sync: 1V pp / 75 ohm and 1V pp /37.5 ohm for 'High Level/Dual load

Power and timecode sources

External power: 9-24V DC via a 4 pin Hirose connector

External power: 5V micro on-the-go USB connector

Internal power: 3.7v Rechargeable Li Polymer battery

T/C input: BNC connector 0.1 to 5V pp or Multi-channel digital transceiver in 865.050-868.550 MHz (CE Approved), 915.050-918.650 MHz (FCC/IC Approved) and 920.600-923.200MHz (ARIB JAPAN Approved)

T/C output: BNC connector (selectable standard/low/mic level)

Frequencies

Timecode Buddy: mini trx RF frequencies

Our CE approved products are for use in UK/EU and CEPT* countries.

*Albania, Andorra, Austria, Azerbaijan, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, The Former Yugoslav Republic of Macedonia (FYROM), Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Vatican.

- 1 UK/EU 865.050 MHz
- 2 UK/EU 865.150 MHz
- 3 UK/EU 865.250MHz
- 4 UK/EU 865.350 MHz
- 5 UK/EU 865.450 MHz
- 6 UK/EU 865.550 MHz
- 7 UK/EU 865.650 MHz
- 8 UK/EU 867.950 MHz
- 9 UK/EU 868.050 MHz
- 10 UK/EU 868.150 MHz
- 11 UK/EU 868.250 MHz
- 12 UK/EU 868.350 MHz
- 13 UK/EU 868.450 MHz
- 14 UK/EU 868.550 MHz

FCC/IC/C-Tick frequencies

- 1 USA/AU/NZ 915.050 MHz
- 2 USA/AU/NZ 915.150 MHz
- 3 USA/AU/NZ 915.250 MHz
- 4 USA/AU/NZ 915.350 MHz
- 5 USA/AU/NZ 915.450 MHz
- 6 USA/AU/NZ 915.550 MHz
- 7 USA/AU/NZ 915.650 MHz
- 8 USA/AU/NZ 918.050 MHz
- 9 USA/AU/NZ 918.150 MHz
- 10 USA/AU/NZ 918.250 MHz
- 11 USA/AU/NZ 918.350 MHz
- 12 USA/AU/NZ 918.450 MHz
- 13 USA/AU/NZ 918.550 MHz
- 14 USA/AU/NZ 918.650 MHz

Japan ARIB frequencies:

- 1 JP 920.600 MHz
- 2 JP 920.800 MHz
- 3 JP 921.000 MHz
- 4 JP 921.200 MHz
- 5 JP 921.400 MHz
- 6 JP 921.600 MHz
- 7 JP 921.800 MHz
- 8 JP 922.000 MHz
- 9 JP 922.200 MHz
- 10 JP 922.400 MHz
- 11 JP 922.600 MHz
- 12 JP 922.800 MHz
- 13 JP 923.000 MHz
- 14 JP 923.200 MHz

Quality declarations

Tested by TRaC EMC & Safety Ltd

CE Declaration of Conformity

Timecode Systems Limited of 9 Mill House, Elgar Business Centre, Hallow, Worcester, WR2 6NJ, UK declares that the Timecode Buddy: mini trx is in conformity with the applicable requirements of the following documents and requirements:

ETSI EN301 489-17 V2.1.1 and EN301 489-1 v1.9.2

FCC warning statement:

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 1. This device may not cause harmful interference.
 2. This device must accept any interference received, including interference that may cause undesired operation.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To satisfy FCC RF Exposure requirements for mobile and base station transmission devices, a separation distance of 20cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Warranty and technical support

Timecode Systems Limited warrants its products against defects in materials and workmanship for a period of one year from the date of original retail purchase. This is a non-transferable warranty that extends only to the original purchaser.

Timecode Systems Limited will repair or replace the product at its discretion at no charge. **Timecode Systems Ltd** is not responsible for consequential damages arising from use of its equipment, proper or otherwise.

Please visit www.timecodebuddy.com for details of the Service Centre for your area.

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Notes:

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