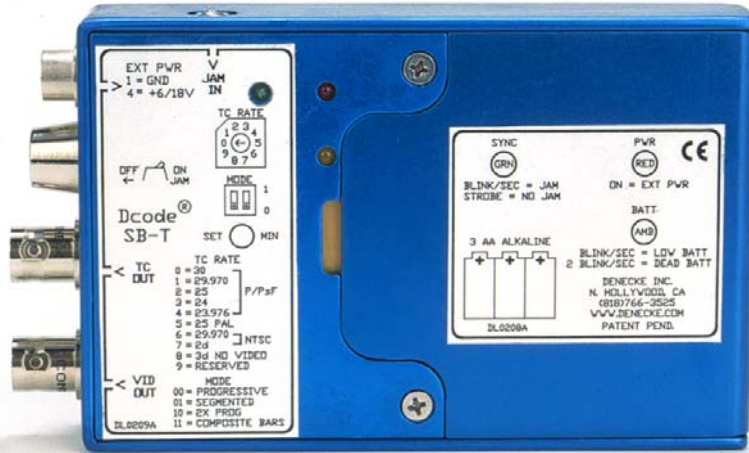


DCODE[®] SB-T



TRILEVEL SYNCBOX

The Dcode[®] SB-T is the latest addition to the Denecke line of Time Code Generators. The SB-T reads, generates and jams to all the standard frame rates including 23.976 for High Definition Video. The outputs include Time Code and Video Sync in PAL and NTSC, as well as Trilevel for HD shoots. The Temperature Compensated Crystal Oscillator (TCXO) ensures low drift. High stability and ease of use make it a welcome addition to any Hi Def or Standard Def shoot!

FEATURES

- Generates Trilevel Sync in all 1920 x 1080 and 1280 x 720 formats, composite PAL and NTSC, as well as all standard time code rates.
- Cross jam regardless of incoming frame rates.
- Jam from an external time code source or set it internally and use as a stand alone generator.
- Continuously jams to new code so there is no need to power down the unit to re-jam.
- Run on 3 AA batteries or power externally through a 4 pin Hirose plug and use the AA batteries as a backup when the camera is powered down.
- Optional 5 Pin lemo socket instead of 4 pin Hirose
- Low and Dead battery warning.

SPECIFICATIONS

Input: -15dB @ 4.7K; 1/8" mini phone jack

Battery Power: 3 Alkaline "AA" Batteries

External Power: 5.7v to 16v DC

Size: 4.475" x 2.90" x 1.050"

TCXO Crystal: +/- 1PPM @ -30° to +75° C

Battery Life: 48+ Hours

Video Out: Composite: PAL & NTC
Trilevel: All 1920 x 1080 Formats and
1280 x 720 formats

Weight: .750 pounds (with batteries)

DENECKE, INC.

5417-B Cahuenga Blvd. • North Hollywood, CA 91601 • (818)766-3525
www.denecke.com • email: info@denecke.com



The Denecke Dcode® SB-T generates all common SMPTE time code rates and video references in 1920 X 1080 (Sony) and 1280 X 720 (Panasonic) High Definition standards. Standard Definition (29.970 fps Non-drop & Drop Frame) and PAL (25 fps) black burst or color bars are generated as well. Three LEDs indicate battery status, sync/internal run and presence of external power.

Three AA batteries power the SB-T or power externally through a 4 pin Hirose or an optional 5 pin Lemo. The amber LED indicates the battery status. OFF = battery good (assuming unit is ON), a once per second flash = battery low, and twice per second flash = battery dead. The batteries should be replaced as soon as possible when dead battery is indicated. External power is indicated when the red LED is ON. When external power is removed, internal battery power change over is automatic and the red LED turns OFF.

The sync LED (green) indicates whether the SB-T is in jamsync mode or in internal run mode. The sync LED flashes once per second (at the start of the frame 00) when in jamsync mode or if the SB-T has been running in internal run mode for 10 minutes. Note that the TC rate and mode switches are locked out to prevent accidental change of the settings and the unit must be powered down for different switch setting to take affect. The SB-T features an automatic jamsync capability which re-jams to any break in time code without the need to power down. The jam occurs at the 00 frame so cross jamming of different rates can be accomplished.

Internal run mode is indicated by the sync LED strobing. When the SB-T is turned on without time code present at its input it will generate its own time code/video reference starting at 00:58:30:00. The TC frame rate and video reference are dependent upon the switch settings. Pressing the set button will increment the minutes, while holding down the set button will scroll the minutes. The minutes roll over into the hours therefore enabling control of the hours and minutes.

The time code rate rotary switch serves two functions. It selects a **time code frame rate** as well as a **video reference**. For example, position 4 selects 23.976 fps time code as well as a Trilevel sync video reference.

Rotary Switch Settings

- 0) 30 fr TC with HD Progressive or Segmented Scan
- 1) 29.970 fr TC with HD Progressive or Segmented Scan
- 2) 25 fr TC with HD Progressive or Segmented Scan
- 3) 24 fr TC with HD Progressive or Segmented Scan
- 4) 23.976 fr TC with HD Progressive or Segmented Scan
- 5) 25 fr TC with Black Burst or Color Bars in PAL
- 6) 29.970 fr TC with Black Burst or Color Bars in NTSC
- 7) 29.970 Drop fr TC with Black Burst or Color Bars in NTSC
- 8) 30 Drop fr TC with no video reference
- 9) Reserved for future use

The mode dip switches select the Trilevel sync format ie. Progressive, Segmented or 2 X Progressive. To generate 23.976 fps time code with segmented scan, the rotary switch is set to position 4 and the dip switches are set to **01**. Where **0 = Down Position and 1 = Up Position**.

Dip Switch Settings

- 00 = 1080 Progressive Scan Trilevel Sync
- 01 = 1080 Segmented Scan Trilevel Sync
- 10 = 1080 Progressive Scan At Twice The Video Rate
- 11 = 720 Progressive Scan Trilevel Sync
- 11 = Color Bars in PAL or NTSC modes instead of default black burst in all other dip switch settings.

The Sony F900 is a "Progressive Scan" camera, but its genlock input is SMPTE "Segmented Scan". The SB-T should be set to position 4 (if shooting at 23.976 fps) and the dip switches set to **01** (Segmented Frames).

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