

SMPTE/EBU TIME CODE GENERATOR / INSERTER / READER

The **ES-488U** is a combination SMPTE/EBU Time Code Generator, Reader and Inserter. The unit can read and generate both time and user bits, and can operate in either drop frame or non-drop frame modes. Front panel controls select Time or User Bits, Drop Frame or Non-Drop Frame, Run or Hold and Reader or Generator modes. The micro-processor circuitry automatically detects and corrects for errors in time code (when reading). The **ES-488U** has "jam-sync" capability and a color sync input. Video Inserter controls allow the Contrast to be adjusted and the Size and Position to be adjusted horizontally and vertically.



Reader Features:

- Display "Hold" Control
- Reads Time or User Bits
- Error Detection & Correction
- Continuous Regeneration Mode
- Eight-Digit .56" Yellow LED Display
- "On Time" Count (Frame Accurate)
- Reads from 1/30th to 30x Play Speed
- Drop Frame & Non-Drop Frame Modes

Generator Features:

- "Hold" Control
- Color Frame Input
- Jam-Sync Capability
- Generates Time & User Bits
- Reset To 00:00:00:00 Switch
- Drop Frame & Non-Drop Frame Modes
- Time Code Synched To Composite Video

Inserter Features:

- Brightness Control
- Keyed or Transparent Display Modes
- Vertical & Horizontal Size Control (2% - 20% of screen)
- Characters & Background Independently Adjustable from Black to White
- Vertical & Horizontal Position Control (anywhere, line by line)



Operation Notes:

- SMPTE/EBU/Film Modes Selectable
- Incoming video is passed through unaffected when "Inserter" Switch is "OFF"
- Setting Controls set Time up to 23:59:59:29 and User Bits up to 99:99:99:99
- Color Frame Input usage assures frame numbers agree with SMPTE color frame standard
- GEN / READ Control selects Generator or Reader mode and implements the Jam Sync Function
- External composite video signal is the source of signal for video character inserter as well as for synchronizing the generated time code output (two BNC video outputs are provided)
- Optional RS-232 Remote Control Interface and Software

Specifications

Time Code Input: 100 mV - 10 Vpp; 2k Ω input impedance unbalanced
Time Code Output: 0 dB into 600 Ω , balanced
Video In/Out: 1 Vpp, 75 Ω
Color Frame Input: Field #1 Vertical interval negative TTL/CMOS pulse

Drift: 33ms/Day
Display: Eight Digits, Yellow LED, .56" High
Electrical: 117 VAC, 50/60 Hz
Power: 10 Watts Maximum
Mechanical: 1.75" x 19" Rack Mount, 10" Deep
Options: Black, J, R, UL

