# SMPTE/EBU
# TIME CODE GENERATORS

The **ES-461U** and **ES-263** are SMPTE/EBU Time Code Generators.  Front panel thumbwheel switches allow the user to preset the unit's Hours, Minutes and Seconds (Hours & Minutes only on the ES-263) or User Bits.  Each unit accepts composite video or composite sync and operates in drop frame or non-drop frame mode.  Features include a video sync input, a color frame pulse input and a clock "Hold" function.
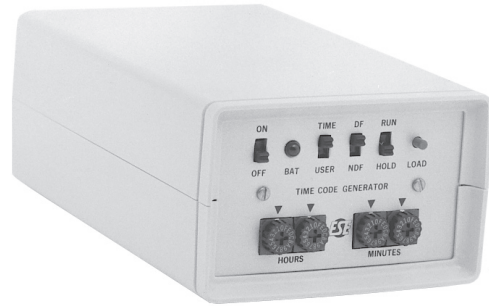
## Features:

- "Hold" Control
- Video Sync Input Accepts Either Composite Video Or Sync
- Drop Frame & Non-Drop Frame Mode
- Custom Modifications Available
- Time & User Bits Are Presetable



## RACK MOUNT GENERATOR

The **ES-461U** is a microprocessor-based, presettable SMPTE Time Code Generator.  SMPTE Time or User Bits can be preset via the unit's front panel thumbwheel switches.  Or, the unit can be Jam-Synched to an external source of SMPTE via the rear mounted female XLR connector.  The SMPTE output is accessible via the rear mounted male XLR connector.  Two BNC connectors provide a loop-thru Video Sync Input that accepts either composite video or sync.  A Color Frame Input is also provided via a BNC connector.

The **ES-461U** is housed in a rack mount enclosure that measures 1.75" x 19" x 10" deep, with a black anodized front panel.  Power required is 117 VAC 50/60 Hz and 220 VAC 50/60 Hz is optionally available.  EBU operation can be optionally specified.  Option "UL" provides a UL Approved wall mount power supply.

## PORTABLE GENERATOR

The **ES-263** is a portable, presettable SMPTE Time Code Generator.  The microprocessor-based unit can be preset using the front panel mounted controls (only hours and minutes are presettable as seconds and frames are automatically set to 00:00).  The **ES-263** can generate Time Data or User Bits (User Bits are presettable with hexadecimal values "0 - F").  SMPTE Time Code (unbalanced) is output via a rear mounted RCA and the Video Sync Input (composite video or sync) is via a rear mounted BNC connector.

The unit is housed in a small portable enclosure that includes a convenient belt clip.  The internal battery provides up to ten hours of operation per charge.  An AC/wall adapter/charger is also included.  PAL and/or EBU operation can be optionally specified.

## SPECIFICATIONS

|  | ES-461U | ES-263 |
|---|---|---|
| **Time Code Output**: | 0 dB into 600Ω, balanced | 2 Vpp, unbalanced |
| **Time Code Input**: | 100 mVpp - 10 Vpp, unbalanced | N/A |
| **Video In/Out**: | 1 - 2 Vpp, unterminated | 1 - 2 Vpp, unterminated |
| **Color Frame Input**: | TTL or CMOS Field #1 negative pulse | N/A |
| **Drift**: | 2 Seconds/Day | 2 Seconds/Day |
| **Mechanical**: | 1.75" x 19" x 10" Deep, rack mount | 3.6" W x 2.3" H x 6" D, 1 lb. |
| **Electrical**: | 117 VAC, 50/60 Hz, 5 W | Internal Battery; 117 VAC Adapter/Charger |
| **Battery**: | N/A | 1.2 A Gel Cell @ 12 VDC, 120 mA |
| **Options**: | EBU, J, UL | EBU, PAL |