

# TIME CODE READERS

These six-digit (or four-digit) displays are designed to be "Universal" Time Code Readers. All models described below are able to auto-detect, read and display **ESE** (TC76™, TC89™ or TC90™), ASCII (format A, 0 or 1 @ 9600 baud; RS-232C, RS-422A or RS-485), EBU or SMPTE time code.

Setup Features allow the unit to display time in either 12 or 24 hour format and if reading **ESE** Time Code to display "Date" information and if reading SMPTE/EBU to display "User Bits". An Error Detection and Correction Feature maintains flicker-free operation in the event of poor quality or loss of time code. An Error Detection Indicator is also included and the Error Correction Feature may be turned-off via an internal DIP switch.

Several Options are available with "U" Series Readers. LED color options of Amber, Blue, Green and Red can be specified on the 1", 2", 4" and 7" units with LED displays. Option "TZ" allows the unit to be "offset" to other time zones via an internal set of DIP switches. **ESE** and ASCII (RS-232C) time code outputs are also optionally available. Most units are available with a rack mount enclosure, option "P". Other options are listed below.

Each Reader requires only a single pair of wires (or coax) between itself and the Master Clock (or other source of time code). The wiring arrangement can be parallel, serial or both. Please note that extra long cable runs may require a Distribution/Isolation Amplifier, refer to page 15 (ES-243) for more information.

## Features:

- Reads SMPTE/EBU, ASCII or **ESE** Time Code
- Error Detection & Correction
- Optional Time Zone Offset
- Optional **ESE**, & RS-232C Time Code Outputs
- Display Date or Time
- 0.4" To 7.0" Display Sizes
- 12/24 Hour Format
- Simple Installation & "Hands-Off" Operation
- Long-Life LED Displays
- Desk Top, Console, Wall & Rack Mount Enclosures
- Perfect Synchronization With Master Clock



## SPECIFICATIONS

Model Number	Description	Viewing Distance	Time Code Input	Options
ES-171U	6-digit, 0.4" Red LED in Console mount enclosure	10'	ESE, SMPTE/EBU	J, V, TZ, UL, W
LX-161U	6-digit, .56" Amber LED in "LX-" enclosure	20'	ESE, SMPTE/EBU, ASCII	J, RS, TZ, UL
ES-161U	6-digit, .56" Amber LED in Desk mount enclosure	20'	ESE, SMPTE/EBU, ASCII	<b>ESE</b> , J, NTP-C, NTP-C/PoE, P, P2, PoE, Q, RS, TZ, UL, W
LX-166U	6-digit, 1.0" Amber* LED in "LX-" enclosure	35'	ESE, SMPTE/EBU, ASCII	J, RS, TZ, UL
ES-166U	6-digit, 1.0" Amber* LED in Desk mount enclosure	35'	ESE, SMPTE/EBU, ASCII	<b>ESE</b> , J, NTP-C, NTP-C/PoE, P, P2, PoE, Q, RS, TZ, UL, W, Wall
LX-991U	4-digit (Hr, Min), 2.3" Amber* LED in "LX-" enclosure	70'	ESE, SMPTE/EBU, ASCII	J, NTP-C, NTP-C/PoE, PoE, TZ, UL
ES-991U	4-digit (Hr, Min), 2.3" Amber* LED in Desk mount enclosure	70'	ESE, SMPTE/EBU, ASCII	J, NTP-C, NTP-C/PoE, P, PoE, TZ, UL, W, Wall
LX-993U	6-digit, 2.3" (1" Sec) Amber* LED in "LX-" enclosure	70'	ESE, SMPTE/EBU, ASCII	J, TZ, UL
ES-993U	6-digit, 2.3" (1" Sec) Amber* LED in Wall mount enclosure	70'	ESE, SMPTE/EBU, ASCII	J, P, TZ, UL, W
ES-996U	6-digit, 2.3" Red* LED in Wall mount enclosure	70'	ESE, SMPTE/EBU, ASCII	CW, J, NTP-C, NTP-C/PoE, P, PoE, TZ, UL, W
ES-941U	4-digit (Hr, Min), 4.0" Red* LED in Wall mount enclosure	120'	ESE, SMPTE/EBU, ASCII	J, NTP-C, NTP-C/PoE, PoE, TZ, UL, W
ES-943U	6-digit, 4.0" Red* LED in Wall mount enclosure	120'	ESE, SMPTE/EBU, ASCII	J, NTP-C, NTP-C/PoE, PoE, TZ, UL, W
ES-976	6-digit, 7.0" Red* LED in Wall mount enclosure	250'	ESE, SMPTE/EBU, ASCII	CW, J, NTP-C, NTP-C/PoE, PoE, TZ, UL, W

\*Amber, Blue, Green or Red LED display color can be specified

Display	Power	Electrical	Enclosure	Style	Dimensions
0.4" LED:	5 Watts	117 VAC, 50/60 Hz	0.4" - Console:	Black ABS Plastic	2.2" H x 4.5" W x 4.5" D
.56" LED:	5 Watts	117 VAC, 50/60 Hz	.56" - LX:	Black Texture (High-Tech)	1.7" H x 8" W x 6" D
1.0" LED:	5 Watts	117 VAC, 50/60 Hz	.56" - Desk:	Black Plastic / Aluminum	2.8" H x 8" W x 6" D
2.3" LED:	8-10 Watts	117 VAC, 50/60 Hz	1.0" - LX:	Black Texture (High-Tech)	3.5" H x 10" W x 6" D
4.0" LED:	8-10 Watts	117 VAC, 50/60 Hz	1.0" - Desk:	Black Plastic/ Aluminum	5.5" H x 10.4" W x 6.6" D
7.0" LED:	10 Watts	117 VAC, 50/60 Hz	2.3" - LX:	Black Texture (High-Tech)	3.5" H x 12" W x 6" D
			2.3" 4-digit Desk:	Black Plastic/ Aluminum	5.5" H x 10.4" W x 6.6" D
			2.3" 6-digit Wall:	Black Textured Aluminum	5" H x 12" W x 3.5" D
			2.3" 6-digit Wall:	Black Textured Aluminum	5" H x 15" W x 3.5" D
			4.0" 4-digit Wall:	Black Textured Aluminum	7" H x 19" W x 3.5" D
			4.0" 6-digit Wall:	Black Textured Aluminum	7" H x 26" W x 3.5" D
			7.0" 6-digit Wall:	Black Textured Aluminum	9" H x 43" W x 3.5" D