

1212T, 1216T, 1212TL, 1216TL

Analog Clock Display

The 1200T series Analog Clock Displays take master and slave clock technology to new levels of convenience and excellence. The clocks are microprocessor controlled and employ separate direct drive motors for each hand. This means that, as well as being able to set the time almost instantaneously, the new displays are also silent in operation. The hands of the clocks can be programmed to move in sweep mode or in steps.

Each clock can be programmed for automatic Daylight Saving Time adjustment, as well as for any time zone offset using a laptop computer. It is then only necessary to supply the clock system with Universal Coordinated Time (UTC) from the master clock. Daylight Saving Time changes will be automatic, as will adjustments for different time zones.

Each clock can be used as a master or slave clock. When used as a slave clock, it reads SMPTE linear timecode (LTC) from a master clock. When used as a master, it generates LTC for distribution to other slave clocks. In fact, any clock in the chain can generate timecode as soon as it loses timecode input from the master. The system is therefore extremely robust and reliable.

When the +T option is added, the 1200T series clocks can lock to time distributed as Network Time Protocol (NTP) over Ethernet.

The problems of power distribution have also been considerably simplified. With other clock products, it is necessary to install power outlets wherever clocks are to be located. The 1200T series system slave clocks are powered from the Ethernet cable that distributes both power and NTP time. The clocks may also be powered locally using the AC to 12VDC adapter provided.

Internal crystal oscillators ensure that the clocks will continue to operate in the absence of input timecode. Internal battery backup ensures that each clock will continue to keep time in the absence of timecode and power. When power resumes, the hands will immediately reset to the correct time.

The 1200T series clock displays are offered in two sizes. Backlighting is available for all models.



►Features & Benefits

- Automatic detection of 30 Fps or 25 Fps SMPTE LTC timecode input
- May act as an NTP client when +T option is ordered
- Three motors for quiet operation and rapid hand setting - sets to time in 10 seconds
- Automatic Daylight Saving Time adjustment
- Addressable slave clocks with programmable time offsets of 0 to 23.5 hours in 0.5 hour increments - set via DIP switches, RS-232 control or VistalINK®
- Accepts date information from LTC User Bits using SMPTE ST 309 or Leitch™ protocol
- Master or Slave operation with battery backed up clock
- Single cable distribution for both power and NTP using IEEE 802.3at Power over Ethernet
- Optional back lighting of clock face
- Two sizes 12" or 16"
- Time may be set manually via pushbutton switches, or through the RS-232 serial port, or via VistalINK®
- Completely self-setting with NTP, (optional) SMPTE timecode input or battery back-up
- Built-in quartz time base oscillator with battery back-up
- May be configured as a timecode generator to drive other clocks
- Lighting brightness is adjustable
- Powered by 12VDC (with 50/60 Hz, 100→240 VAC adapter), or IEEE 802.3at Power over Ethernet
- 10/100Mbit Ethernet port for NTP and SNMP control/monitoring with VistalINK® Pro

►Specifications

LTC Input: Standard: SMPTE ST 12-1 linear time code - 25 or 29.97 drop-frame Fps nominal. Connector: Phoenix 4 pin terminal connector. Signal Level: 1 Vp-p nominal. Input impedance: > 30KΩ	Serial Port: Connector: Female DB-9 Level: RS232 Baud Rate: 57.6 Kbaud Format: 8 data bits, no parity, 2 stop bits	Electrical: Voltage: AC/DC 12 VDC nominal. Auto ranging 100→240 VAC 50/60 Hz to 12VDC adapter provided. Power over Ethernet: IEEE 802.3at Type 1 Power consumption: 12 Watts
LTC Output: Standard: SMPTE ST 12-1 linear time code - 25 or 29.97 drop-frame Fps nominal. Connector: Phoenix 4 pin terminal connector. Signal Level: 2 Vp-p nominal Mode: configurable as loop thru from input or output of local clock time.	Ethernet: Network Type: Fast Ethernet 100 Base-TX IEEE 802.3u standard for 100 Mbps baseband CSMA/CD local area network. Ethernet 10 Base-T IEEE 802.3 standard for 10 Mbps baseband CSMA/CD local area network. Supports Type 1 Power over Ethernet.	Physical: Outside Dimensions: 1212T, 1212TL: 13" W x 13" H x 2.5" D (330 mm W x 330 mm H x 64 mm D) 1216T, 1216TL: 17" W x 17" H x 2.5" D (432 mm W x 432 mm H x 64 mm D) Clock Face: 1212T, 1212TL: 12" diameter 1216T, 1216TL: 16" diameter
Time Keeping: Accuracy: <2 seconds per day with power on, no timecode present. <10 seconds / day with power removed.	Connector: RJ-45 NTP Standard: NTP v4 compliant, client mode support when +T option installed.	Weight: 1212T, 1212TL: 6.5 lb (2.9 Kg) 1216T, 1216TL: 10.5 lb (4.75 Kg)
Time Zone Offset: 0 to 23½ hours in ½ hour increments Set with DIP switches or serial port command or Vistalink. Automatic daylight saving time can be enabled.	Backup Battery: Type: CR-2032 3 volt lithium cell. Life expectancy: > 5 years	

►Ordering Information

1212T	12 inch Analog clock
1212TL	12 inch Analog clock and back lighting
1216T	16 inch Analog clock
1216TL	16 inch Analog clock and back lighting

Ordering Options

+T Network Time Protocol