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Synchronized Clock Systems

SMA 2000 Series Master Clock (V8.4)

Features

- Available in Rack or Wall Mount designs
- LED display for a clear, accurate readout
- Automatic bi-annual Daylight Saving Time changes (if applicable)
- Capable of interfacing and providing time data to third-party clock systems
  - Supports 59 minute correction, 58 minute correction, National Time/ Rauland, Rauland Digital
  - Dukane Digital, input only
- Bias seconds output
  - Adjust the time plus or minus a few seconds or minutes to fit your application
- RS485 input and output for time correction and synchronization
- 12 or 24 Hour Mode
- Microprocessor based

Highlights

- Built-in web interface – Each master clock has a built-in web interface allowing the user to program, control, and monitor the master clock from any computer connected to the same LAN without the need for additional software
  - Settings include: Network settings, NTP server selection, Email alerts, UTC/GMT offset selection, automatic Daylight Saving Time adjustments, and more!
- All versions of the clock receive accurate time from one of ten pre-programmed third party NTP servers (user changeable) for maximum reliability and redundancy. Alternatively, the master clock can be set to receive the time data from an in-house NTP server or via an optional GPS receiver.
- Email alerts for:
  - NTP Synchronization Timeouts
  - Power Resets
  - GPS Synchronization Timeouts (if applicable)
  - And more!
- Ten year battery backup for internal timekeeping and settings

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Additional Optional Features

- GPS receiver
- Transmitter for correction of Sapling SAL(G) Series Wireless Analog Clocks or SBL(G) Series Wireless Digital Clocks
- (S)NTP Server
  - With the (S)NTP server upgrade, the Sapling SMA Master Clock can be used as an (S)NTP server to provide (S)NTP time to any IP device capable of receiving it

Specifications

Housing:

Smooth surface metal case

Color:

Black

Mounting:

Wall Mount or Rack Mount

Display:

0.56" (1.42 cm) LED display

Calendar:

Built-in calendar with leap years

Housing Dimensions (LxWxD):

11.0" x 17.5" x 1.75"
(27.94 cm x 44.45 cm x 4.45 cm)

Weight:

6.5 lbs. (2.95 kg)

Time Base:

Crystal

Memory:

Non-volatile EERPROM

Temperature Range:

Operating: 32°F - 113°F (0°C - 45°C)

Shelf: 5°F - 167°F (-15°C - 75°C)

Voltage Input:

85 VAC – 264 VAC, 50/60 Hz

Current Consumption:

0.2A at 120V and 0.1A at 230V

Power Consumption:

20 Watts

Inputs:

RS485, 59 minute correction, 58 minute correction, National Time and Rauland, Rauland digital, Dukane digital, Once a Day Pulse, GPS (optional), (S)NTP, Wireless Repeater (optional)

Outputs:

RS485, 59 minute correction, various 58 minute corrections, National Time and Rauland, Rauland Digital, Once a Day Pulse, Once an Hour Pulse, Once a Minute Pulse

Includes:

1 – 6 foot (1.82 m) power cord

1 – Wall Mount Kit (Wall Mount only)

1 – Remote Antenna
(Rack Mount and transmitter option only)

1 – 75 foot (22.86 m) GPS cable
(with GPS option; longer cables available)

1 – Dome Antenna (with GPS option)

Ethernet Speed:

10/100 Mbps Full Duplex

Ethernet Port:

RJ45

Compliance:

UL and cUL listed

FCC part 15 B "class B digital devices"

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CE Compliances: EMC, LVD

Options – Transmitter

Input Sensitivity:

-112 dBm

RF Signal Output:

30 dBm (1 watt)

Transmission Frequency:

Either 900 MHz or 2.4 GHz
frequency-hopping technology

Options – GPS

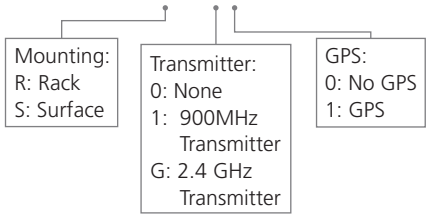
GPS Antenna:

Bullet shaped active antenna that mounts to ¾" conduit (please refer to Sapling's GPS Mounting Kit Spec Sheet)

Antenna Dimensions:

Ordering Information:

SMA 2000 Series Master Clock: SMA–2X0–XX00–1



SMA 2000 Series Software Upgrade to (S)NTP Server: SMA-000-SERV-0