

## SMA 3000 Series Master Clock (V7.1)

### Features

- Available in Rack or Wall Mount designs
- LED display for a clear, accurate readout
- Two line, backlit LCD display with 20 characters per line
- 2x8 rubber push button keypad for easy on-site programming
- 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, Scheduling for Programmable Relays (if applicable), 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

specification sheets may change without prior notice

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### Additional Optional Features

- Four or eight programmable relays (zones)
  - 800 event capacity
  - 255 pre-programmed schedule changes
  - Two programmable signal durations per circuit
- 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 and provide (S)NTP time to any device capable of receiving it
- Countdown feature
  - The master clock will send a countdown command to all SBD and SBL(G) series digital clocks in the system for a preset amount of time

### 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, 2 clock circuits, Once a Day Pulse, Wireless Communication (optional), (S)NTP (optional)

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## SMA 3000 Series Master Clock (V7.1)

### 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"
- CE Compliances: EMC, LVD

### Options – Programmable Relays/Zones

#### Auxiliary Zones:

4 or 8 zones optional

#### Contact Rating:

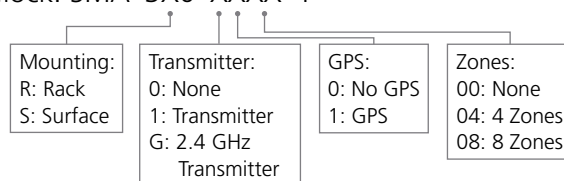
- 115 VAC – 8 amps
- 230 VAC – 5 amps

#### Signal Duration:

- 2 customizable durations per programmable relay,
- 1 – 9999 seconds or on/off

### Ordering Information:

SMA 3000 Series Master Clock: SMA-3X0-XXXX-1



- SMA 3000 Series Software Upgrade to (S)NTP Server: SMA-000-SERV-0
- Countdown Feature (for digital clocks with relays): SMA-000-CDOW-0

### 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 3/4" conduit (please refer to Sapling's GPS Mounting Kit Spec Sheet)

#### Antenna Dimensions:

- Diameter: 3.04" (7.72 cm)
- Height: 2.94" (7.47 cm)