

## SMM 3000 Series Master Clock (V1.3)

### Features

- 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)
- Transmitter for time data and message commands to the Sapling SDLG Wireless Digital Message Clock/display and time data only for the Sapling SALG and SBLG
- 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
- 12 or 24 Hour Mode
- Microprocessor based



### Highlights

- Built-in web interface – Each master clock has a built-in web control, and monitor the master clock from any computer or smartphone 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)
- Ten year battery backup for internal real-time clock timekeeping
- Eight programmable relays (zones)
  - 800 event capacity
  - 255 pre-programmed schedule changes
  - Two Programmable Sync Time Relays for supported sync-wire time protocols. Providing Contact Closure for the time sync.
- Can transmit up to 15 different message codes when interfacing with SMI-000-0016-0 through RS485

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### \*Additional Optional Features

- GPS receiver
- Acting as an (S)NTP Server
  - With the (S)NTP server upgrade, the Sapling SMI Master Clock can be used as an (S)NTP server and provide (S)NTP time to any device capable of receiving it
- Prescheduled Countdown feature upgrade allowing the master clock to send a countdown command to all SBLG and SDLG series digital clocks in the system for a preset amount of time
- Available in Rack mount

\* All optional features are not field upgradable and must be selected at the time of ordering the Master Clock

### Specifications

#### Housing:

Smooth surface metal case

#### Color:

Black

#### Mounting:

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 EEPROM

#### 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:

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

## SMM 3000 Series Master Clock (V1.3)

**Includes:**

- 1 – 6 foot (1.82 m) power cord
- 1 – Remote Antenna
- 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"

**Programmable Relays/Zones**

**Auxiliary Zones:**

8 zones

**Contact Rating:**

115 VAC – 8 amps  
 230 VAC – 5 amps

**Signal Duration:**

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

**Input Sensitivity:**

-112 dBm

**RF Signal Output:**

30 dBm (1 watt)

**Transmission Frequency:**

2.4 GHz frequency-hopping technology

**Optional – 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)

**Transmitter**

**Ordering Information:**

SMM 3000 Series Master Clock: SMM-3R0-GX08-1

