

SMA Series Master Clock

The SMA 2000 Series is our standard master clock model with a front LED display and two push buttons for basic system programming. The SMA 3000 Series comes with a front LED and LCD display as well as a keypad to allow for advanced programming. The SMA 3000 model may also be offered with four or eight programmable relays (zones) to control third party systems via a contact closure (such as a school bell system).

All of Sapling's Master Clocks come with a built-in web interface to allow easy setup and programming from any computer in the facility via LAN. By default, the master clock receives the time data from third party NTP servers via the internet. The master clock is also offered with an optional GPS receiver as an additional source for receiving accurate time. In addition, the master clock has a built-in real-time clock and can send an email alert when communication with the accurate time source(s) is lost.

STANDARD FEATURES

- Available in rack or wall mount housing
- LED display for a clear, accurate read out
- Backlit LCD display (3000 model only)
- Two buttons for programming (2000 model) or 2 x 8 rubber button keyboard for easy programming (3000 model only)
- Intuitive built-in web interface allows the system admin to configure all settings of the Master Clock easily from the convenience of any computer on the same network
- RJ45 input for web interface access and synchronization to any SNTP/NTP server
- Ability to store up to 10 different NTP server IP addresses or domain names for continuous accurate time and redundancy
- Automatically switches from one accurate time source to another in case of a communication failure
- Blinking LED on master clock front panel to visually indicate a communication failure with the NTP server or GPS time source
- The master clock can be programmed to send an email alert when communication with the accurate time source has failed, when the master clock has been rebooted, when the fire alarm in the facility has been activated (if applicable), and more
- Can control wired clock systems, wireless clock systems (when equipped with transmitter), and provide the time to IP clocks simultaneously
- May synchronize third party wired clock systems
- Supports 59 minute, various 58 minute, National Time/Rauland, and Rauland Digital sync-wire outputs and Once A Day Pulse

- 12 or 24 hour display
- Automatic, fully customizable Daylight Saving Time updates, if applicable
- Selectable UTC/GMT offset
- Bias seconds option – offsetting the master clock to adjust the time plus or minus a few seconds or minutes to fit the application, while it is still receiving accurate time input
- DHCP Capable
- Proprietary RS485 input and output for time synchronization
- Microprocessor based
- Ten year battery backup for keeping time and master clock settings in the event of a power outage

OPTIONAL FEATURES

- GPS input for accurate time synchronization
- NTP server upgrade
- Four or eight configurable auxiliary relays which control other systems by closing a relay at predetermined times (3000 model only)
 - 255 schedule (group of events) and 800 event capabilities (such as triggering bells)
 - Two programmable closure durations per relay
- Transmitter to provide time correction to a Wireless or TalkBack Wireless System
- Prescheduled countdown feature
 - The master clock sends a countdown command to all digital clocks at a predetermined time. When choosing this option, at least four programmable relays (zones) are required (3000 model only).



Accessories

Sapling offers different accessories to accommodate various project needs. These include:

- Converter Box
 - Converts RS485 time data from the Sapling Master Clock to 2-Wire Digital Communication Protocol
 - Transforms local power (110 VAC/230 VAC) to 24 Volts
 - Provides both time data and 24 Volt power to secondary clocks over two wires
 - Three outputs with a total capacity of 5.5 amps, \pm 24 volts
 - Protects against overloading and shorts, as well as preventing damage from overheating
 - Diagnostic LEDs relay operating status
 - Quiet operation
 - Simple Installation
- Elapsed Timer Control Panel (can interface with 3200 and 3300 models)
- Buzzer Accessory (can interface with 3300 model)
- Temperature Sensor (can interface with 3200 and 3300 models)
- Wire Guards
- Clear Protective Covers
- Flag Mount and Double Mount Housing
- USB Programming Cable (can interface with 3200 and 3300 models)



Shown above is a Sapling Converter Box which provides both time and power to all secondary clocks in the system