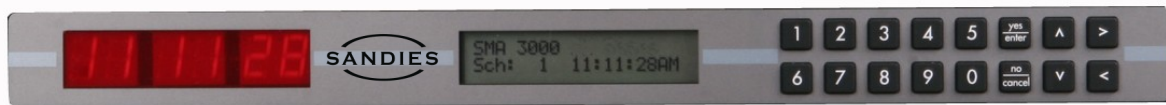


SMA 3000 Series Master Clock (v1)



HIGHLIGHTS

- LED display for a clear, accurate readout
- Two line, backlit LCD display with 20 characters per line
- Improved 2x8 rubber pushbutton keyboard
- (S)NTP Input Capability
 - Up to 10 server addresses can be pre-programmed into the unit for continuous, accurate synchronization (with Browser software upgrade)
 - DHCP Capable
- Interfaces with other systems
 - Interfaces with 59 and 58 minute correction, National Time and Rauland, as well as Dukane digital
- 12 or 24 hour mode
- Automatic bi-annual daylight savings time changes (when used as a primary master clock)
- Bias seconds output
 - Adjust the time plus or minus a few seconds or minutes to fit your application, while still receiving an input from another source
- Microprocessor based
- RS485 input and output for time correction and synchronization
- Two (2) relays for simultaneous correction of two synchronous-wired clock systems
- Field programmable
- Ten (10) year battery backup for timekeeping

OPTIONAL FEATURES

- Four or eight configurable auxiliary relays (zones)
 - 800 event capability
 - 255 pre-programmed schedule changes
 - Two (2) programmable signal durations per circuit
- GPS input
- Wireless Transmitter/Repeater for correction of the SAW series analog clocks or SDW series digital clocks
- Remote zoning capabilities
- SNTP Server
 - With this software upgrade, the new SMA Master Clock can be used as a SNTP server to interface with other devices
- Browser software upgrade
 - Extremely intuitive graphical user interface that allows the user to configure all of the settings of the SMA through a simple web browser
 - Easy programming of the master clock's four or eight auxiliary relays for scheduling.
 - Control of all of the IP settings
 - View complete lists of all the pre-programmed events and schedules
- Countdown feature
 - Digital clocks will countdown a preset amount of time when the relay is activated

DESCRIPTION

The new SMA 3000 series master clock is a highly accurate, microprocessor based multifunctional clock controller. The SMA series can be configured in a variety of ways to fit a variety of different needs. This state-of-the-art time base is capable of providing automatic and manual operation of auxiliary control circuits. The 3000 Series also provides field-enabled daylight savings time adjustment for automatic bi-annual correction of all auxiliary circuits (when used as a primary master clock). The programming is easily accomplished by using the 16 button rubber keypad and the LCD display. The master clock is powered by external 110 VAC/60 Hz or 220 VAC/50 Hz. However, in the event of a power failure, a lithium battery will provide ten (10) years of battery backup for time keeping functions. Individual events can be programmed to occur on any or all days of the week if the optional zones are ordered. Operation of the auxiliary circuits/relays feature second resolution so that programs are set precisely to the second, not the minute. The SMA 3000 can also interface with a computer via Ethernet and all of its settings can be configured from a web browser (optional). The master clock can also function as a GPS receiver (optional) to receive UTC time from the satellites for precise timekeeping. The SMA 3000 can act as a wireless transmitter (optional) to send the wireless signal to SANDIES SAW analog clocks and SDW series digital clocks. The clock can also interface with many other systems such as 59 minute, 58 minute, National Time & Rauland, etc.

SMA 3000 Series Master Clock (v1)



SPECIFICATIONS

- Time base: Crystal
- Voltage input: 90 - 250 VAC, 50/60 Hz
- Display: Vibrant LCD display and .56" LED display
- Color: Black
- Housing: Smooth surface metal case
- Keypad: 2x8 rubber tactile keypad
- Temperature range:
 - Operating: 0°C - 45°C
 - Shelf: -15° - 70°C
- Calendar: Built-in calendar with leap years
- Inputs: GPS (optional), SNTP, Wireless repeater, RS485 , 58 minute correction, 59 minute correction, National Time and Rauland, Dukane digital

- Standby time keeping: Ten (10) years
- Memory: Non-volatile EEPROM
- Outputs: RS485, RS232, and 2 clock circuits
- Optional outputs: SANDIES Wireless Communication (with transmitter option)
- Housing dimensions (LxWxD): Surface - 11" x 17.5" x 1.75"
- Mounting: Wall mount or rack mount
- Weight: 7 lbs.
- Includes:
 - 1 - 6 foot power cord
 - 1 - Wall mount kit (wall mount only)
 - 1 - Rack mount kit (rack mount only)
 - 1 - 75 foot GPS cable (with GPS option)
 - 1 - Dome antenna (with GPS option)

- Compliance: UL, cUL pending and FCC part 15, section 15247

OPTIONS - Zones

- Auxiliary zones: 4 or 8 zones optional
- Contact rating : 8 amps, 0 - 220 volts
- Signal duration: 2 programmable signals per circuit, 1 - 9999 seconds or on/off

OPTIONS - Transmitter

- Input sensitivity: -103 dBm
- RF signal output: 30 dBm (1 watt)
- Transmission frequency: 915 - 928 MHz frequency-hopping technology

OPTIONS - GPS

- Antenna: Thread mount bullet on 3/4" conduit
- Antenna dimensions: Diameter: 3.04" Height: 2.94"

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

The master clock shall be a SANDIES SMA 3000 Series. It is to be microprocessor based and programmable via a 16 key rubber tactile keypad and a 20 character x two (2) row backlit LCD display. The master clock shall have a six (6) digit LED display. The master clock shall provide field enable/disable daylight savings time (when used as a primary master clock). The programmable master clock shall be capable of storing, in a non-volatile memory, and controlling up to 800 events (with optional zones), each set with precise second resolution if zones are purchased. Special programs are to be readily programmed for up to 99 different schedules changes in advance. The master clock shall handle up to 255 schedules. The master clock shall have a RJ45 input and for interfacing with a computer and programming the clock through a web browser, if the browser feature is purchased. The master clock will be capable of interfacing with other systems. The master clock will be capable of controlling two (2) different clock systems simultaneously. In addition, the RS485 input and output can control SANDIES RS485 analog and digital clocks. The SMA 3000 master clock shall have the capabilities to receive GPS time (optional) or time from a SNTP server. The clock may act as a SNTP server (optional). The master clock shall have a ten (10) year battery backup for timekeeping. The SMA 3000 shall act as a wireless transmitter (optional) to the SANDIES Wireless clock systems. The transmitter shall utilize 915-928 MHz frequency-hopping technology.