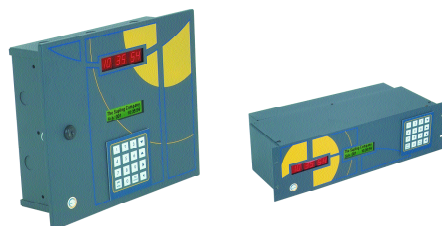
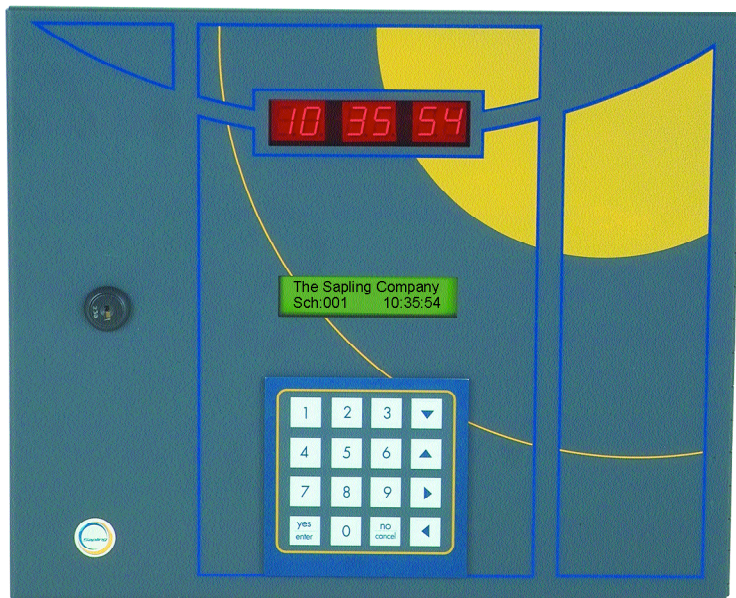
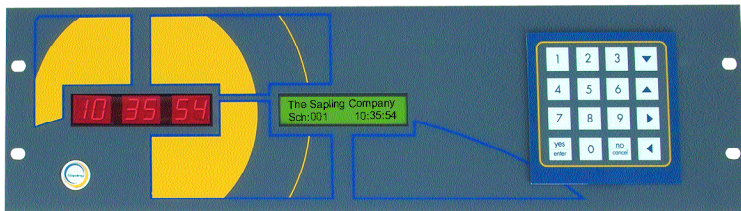


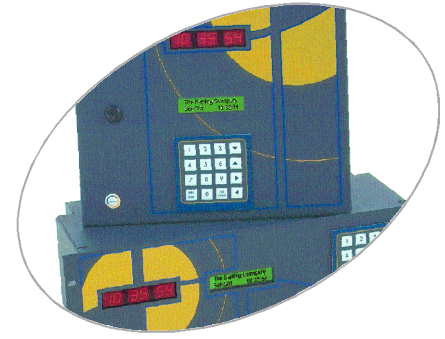
SMC 3000 Series Master Clock

Description

The 3000 Series master clock is a highly accurate, microprocessor based multifunctional clock controller. This state-of-the-art timebase is capable of providing automatic and manual operation of auxiliary control circuits. The SMC 3000 has a temperature controlled time base allowing calibration of the time during variants in temperature. 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 point waterproof membrane 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. Non-volatile EEPROM memory is utilized, enabling the SMC 3000 to retain all program information for an unlimited period of time even with all power removed. Individual events can be programmed to occur on any or all days of the week. This allows a total of 800 programmable events to be stored in memory. 255 schedules can be programmed into the SMC 3000, and the customer can set up to 50 scheduling changes in advance. Operation of the auxiliary circuits/relays feature second resolution so that programs are set precisely to the second, not the minute. The SMC 3000 can also interface with a computer via RS232. In addition, the SMC 3000 can interface with other systems.



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Highlights

- ▶ Microprocessor based
- ▶ Comes equipped with a temperature controlled base allowing calibration of the time during variants in temperature
- ▶ Interfaces with other systems such as 59 and 58 minute correction, National Time and Rauland and Dukane digital
- ▶ LED display for a clear, accurate readout
- ▶ MEDITOR software for interfacing with a PC
- ▶ Automatic bi-annual daylight savings time changes (when used as a primary master clock)
- ▶ Operation of auxiliary circuits for programming with precise second resolution
- ▶ 800 event capability
- ▶ Contains up to 255 schedules
- ▶ Field programmable
- ▶ Two (2) levels of programming menus for technicians and end users
- ▶ Program up to 50 scheduling changes in advance
- ▶ Ten (10) year battery backup for timekeeping
- ▶ Non-volatile program memory
- ▶ Capable of correcting most clocks in the field
- ▶ Two (2) programmable signal durations per circuit (1—3600 seconds) or signal on/off
- ▶ Four (4) auxiliary relays for programming is standard (Up to 12 optional)
- ▶ Two (2) auxiliary relays for simultaneous correction of two clock systems as standard
- ▶ RS232 connection for interfacing with computers
- ▶ RS485 input and output for time correction and synchronization
- ▶ Digital communication output
- ▶ Two (2) line LCD display with 20 characters per line
- ▶ 16 key waterproof membrane keypad
- ▶ Surface semi-flush and rack mountable
- ▶ UL and cUL listed
- ▶ Made in the U.S.A.

Architectural & Engineering Specifications

The master clock shall be a Sapling SMC 3000 Series. It is to be microprocessor based and programmable via a 16 key waterproof membrane keypad and a 20 character x two (2) row LCD display. The master clock shall have a six (6) digit LED display. The master clock shall be controlled through a frequency tuning circuit allowing for the time base to adjust with fluctuations in temperature. 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, each set with precise second resolution. Special programs are to be readily programmed for up to 255 different schedules and holidays, and 50 scheduling changes can be set in advance. The master clock shall have an RS232 input and output for interfacing with a computer. 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 Sapling RS485 analog and digital clocks. The master clock shall have an output for two (2) and three (3) wire digital communication (50 watt, 24 volt DC power supply required). The master clock shall have a ten (10) year battery backup for timekeeping.



Accessories: Page 77

Specifications

Time Base:	Crystal
Frequency Aging:	5ppm/year
Frequency Stability:	5ppm/year
Voltage Input:	85–265 VAC, 50/60 Hz
Power Input:	35 watts
Display:	Vibrant LCD display and .56" LED display
Color:	Standard gray
Housing:	Smooth surface metal case
Keypad:	16 key waterproof membrane
Temperature Range	
Operating:	0°C–45°C
Shelf:	–15°C–75°C
Auxiliary Circuits:	Four (4) circuits standard, up to 12 maximum
Contact Rating:	8 amps, 0–220 volts
Secondary Clock:	Two (2) circuits, selectable clock system, RS485 output
Mounting:	Surface/semi-flush or rack mount
Signal Duration:	Two (2) programmable signals per circuit, 1–3,600 seconds or on/off
Input:	RS485, RS232, 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, +5 VDC, Dig Out, 4 programmable relays and 2 clock circuits
Optional Outputs:	Two (2) wire or three (3) wire digital communication (with auxiliary power supply)
Housing Dimensions: (L x W x D)	Rack—5.25" x 19" 6.25" Surface—11.25" x 13.44" x 3.69"
Shipping Weight:	Rack—9 lbs. Surface—7 lbs.
Power Kit Includes:	1—6 foot power cord (rack mount only) 1—UL back plate (rack mount only) 4—6–32 x 3/8 screw (rack mount only) 2—keys (surface mount only)
Compliance:	UL and cUL listed

Ordering Information

Master Clock

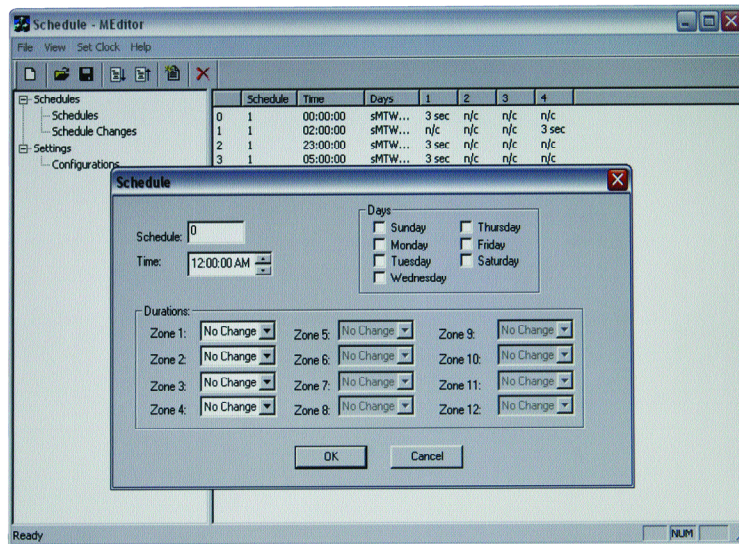
SMC–300–00K–1 ————— Rack Mount

SMC–300–00S–1 ————— Surface Mount

Options: Auxiliary Relays: SMC–00K–100–0 (Rack) or SMC–00S–100–0 (Surface)
50 Watt, 24 Volt Power Supply: SMC–000–010–1 (for 2 or 3 wire digital communication)

SMC 3000 Series Smart Clock MEDITOR Scheduling Software Description

The MEDITOR Software is a practical way to interface from a PC to the SMC 3000 master clock. The software allows the user to schedule multiple events straight from a Windows based program. In the program, the user can add schedules and set durations for the relays, along with setting which days of the week the user wants the events to occur. This program can save time for customers who want to be able to add or change events without having to enter the programming mode in the master clock. MEDITOR also lets the user add or edit schedule changes in the programming. Schedule changes are vital to many customers because it allows them to have the versatility to change over schedules in the event of a half day, early dismissal, or any situation where the schedule needs to be modified. Another benefit of MEDITOR is that the user can synchronize the computer time with the master clock time. They can also synchronize the master clock to the computer time. These features give the customer the simplicity of controlling the master clock from a standard PC. The MEDITOR is linked via RS232 making it simple to connect to the computer. A standard serial cable will be sufficient. By using this simple interface, it makes the MEDITOR Software an easy, cost-effective way of controlling a master clock through a computer.



Highlights

- ▶ Enter schedules and events easily in a Windows-based environment
- ▶ Synchronize the computer time with master clock time and vice versa
- ▶ Add and edit schedule changes with ease for early dismissal, half days or any schedule modification
- ▶ Connected through RS232 serial port making it simple to connect to the PC
- ▶ Enter up to 255 schedules and up to 800 events
- ▶ Allows the user to control all relay circuits
- ▶ Works on most platforms such as Windows 98, ME, 2000 and XP
- ▶ Interfaces directly with the SMC 3000 series master clock
- ▶ Capable of uploading, downloading and saving schedules

Ordering Information

MEDITOR Scheduling Software

SMC-SOF-1

