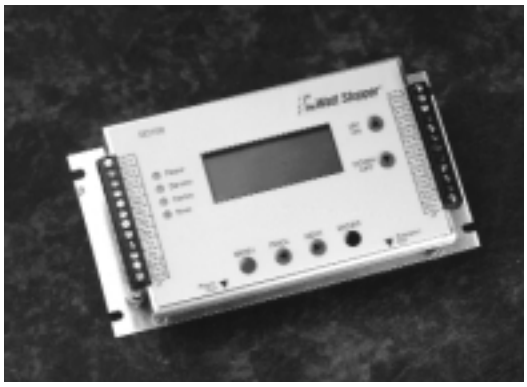
# System Clock for Control Panels

- Time schedule control
- Astronomic based control
- Advanced holiday scheduling
- Battery backed time carry over
- Automatic daylight savings adjustment
- Multiple control channels
- FCC tested, CE certified



## Component Information

The System Clock is the central time controller used in some Watt Stopper lighting control panels. It provides on/off control signals based on time of day, day of week, holiday and calculated sunrise/sunset (astronomic) time. Its simple programming and advanced control features make it a powerful tool for automating control of facility lighting and electrical loads. The SC-100-CP operates with the Basic Control contactor panels while the SC-100 functions with the ARP and ACP products.

## Operation

The System Clock sends on/off commands by either hardwire connection to relay channels, by network communication over twisted pair wiring, or by expansion port connection to a Basic Control intelligence board. This gives the clock the ability to work in the simplest of control applications or to automate larger, more complex systems. The clock schedules are programmed events that command clock channels on and off. Each schedule is assigned a number, type, time-of-day, channel, day(s) and may include other information for specific clock event operation. A schedule can be assigned to operate any combination of days or holiday types. This scheduling flexibility provides great functionality while simplifying programming. All programming is securely stored in non-volatile memory. Unlike many other time clocks, the SC-100 runs an initialization procedure to insure that commands missed during a power outage are executed after power is restored.

## SC-100-CP Features

The SC-100-CP, utilized with the Basic Control contactor panels, features eight control channels that can be independently programmed. In addition, the clock enables control of eight individual override inputs, which can be used to connect external devices such as photocells to the Basic Control system. Programming is easy using the SC-100 keypad, LCD screen, and fill-in-the-blank programming.

## SC-100 Features

When used with The Watt Stopper's ACP and ARP products, the SC-100 may be programmed from a PC using The Watt Stopper's LCS software by direct connect or by modem dial-in. The SC-100 uses LonWorks® networking protocol to reliably operate with ACP-Net and ARP-Net products. Channels of the SC-100 can be linked to control any relay/contactor or group of relay/contactors in these products.

The System Clock is typically ordered as part of a Watt Stopper lighting control panel, whether that be a Basic Control panel or an ACP- or ARP-Net product. One system clock will be installed in the main or central panel in a facility. All other panels in the lighting control system receive their time based control from this centralized system clock. In some applications, a system clock may be ordered with each lighting control panel for stand-alone panel operation.

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# System Clock Technical Information

## Product Specifications

- 120 schedules assignable to one or multiple days of the week or holiday type
- Temporary schedules which execute once then delete themselves
- Repeating schedules from 5 minutes to 10 hours
- 32 holidays, each up to 120 days with 3 holiday schedule types
- Single date, perpetual date, perpetual day of week and perpetual Easter holidays
- Astronomic control predicting sunrise and sunset times
- Astronomic offset ± 120 minutes
- Automatic daylight savings transition
- Manual on/off override from keypad
- Adjustable channel stagger up 1-60 seconds
- Selectable 12 or 24 hour time format
- Battery backed clock operation for up to 8 years
- Non-volatile program memory storage
- Power-up sequence, executes missed schedules following power outage
- Input power of 24 VAC or 24 VDC
- Mounting dimensions: 3.60" x 6.70" x 1.30" (91.44mm x 177.80mm x 33.02mm)
- FCC compliant, CE certified
- One year warranty

## SC-100-CP Model

- Eight output channels
- Configuration of eight individual override inputs

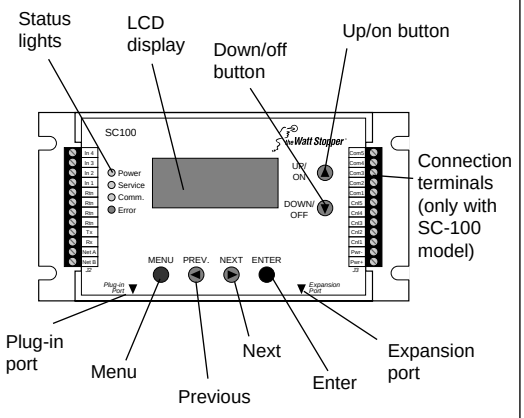
## SC-100 Model

- 32 network output channels
- 5 normally open isolated relays rated 1 Amp 24 VAC/VDC, assigned to channels 1-5
- Duration time scheduling from 1 second to 18 hours

## Ordering Information

| Catalog No. | Description |
|---|---|
| SC-100-CP | System Clock for Basic Control contactor panels |
| SC-100 | System Clock for ARP or ACP panels |

## System Clock Controls




### Schedule Features

**Schedule Types**

A schedule is assigned a type which selects the functional operation of the clock for the assigned schedule. A type can be timed on, timed off, dusk on/time off, time on/dawn off or dusk on/dawn off.

**Temporary Schedules**

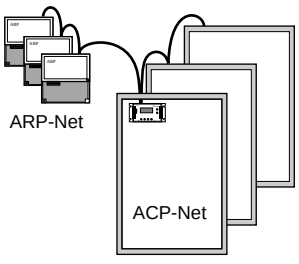
Temporary programmed schedules execute once on the assigned day and then delete themselves from the system clock's memory. This is used for scheduling one time events such as late hour activities, inventories or extended work periods.

**Repeating Schedules**

This feature is used to repeat a schedule at a regular interval and may be set from 5 minutes to 10 hours. This is used to operate a lighting sweep at regular intervals without needing to enter multiple schedules.

## System Clock Wiring

### SC-100 and ARP-Net and ACP-Net




### SC-100-CP and Basic Control contactor panel