

Standard Features

- Control of synchronous wired, power line carrier, impulse, and Simplex digital clock systems.
- Simplex binary coded decimal (BCD) time communications, selectable as either Standard BCD, time only, or Extended BCD time and date.
- Programmable daylight-saving time correction.
- Manual override switches for time controls.
- User selectable, 12 or 24 hour time display.
- Easily programmed using the LCD time and status display.
- Non-volatile memory retains time and programs.
- Nine alternate program schedules with 100 total program events, each available.
- AC line synchronous when 60 Hz powered or crystal time base.
- External input synchronizes until midnight in hours, minutes and seconds.
- Surface wall mount, or service replacement module configurations.
- Programmable control circuits with manual override switches.
- Seven-day programming with seconds resolution for On / Off control.
- Programmed times available to each circuit and each schedule.
- Temperature compensated crystal oscillator (TCXO).
- UL Listed to Standard 863

Optional feature:

GPS/6400 interface enables synchronization with GPS time reference.

Description

The Simplex 6500 is a multiple output, calendar programmable, solid state, time control center. It enables accurate timekeeping for Simplex secondary clocks, including Simplex BCD digital, synchronous wired, power line carrier current minute impulse models. Support is also available for many non-Simplex clock systems. The Simplex 6500 can switch electric circuits according to a preset time and date program. The Simplex 6500's auto prompting alphanumeric display makes programming fast and easy.



Figure 1: 6500-9001 front panel

You can use the outputs to sound bells, control lighting, trigger security door access, and a variety of other applications. It has many programming options, ranging from a simple seven-day schedule to a

more complex schedule utilizing its powerful, alternate annual programming features.

By using the keyboard, you can select built-in Simplex 6500 secondary clock correction modes. If a secondary clock correction mode is selected, the Simplex 6500 will dedicate two of its relay outputs for correction, leaving six relay circuits for control. If the Simplex 6500 is not being used for correcting secondary clocks, Mode 0, then all output relays are available for timed events. Selected outputs can be independently programmed for momentary operation.

Product family

Table 1: The Simplex 6500 series product family includes

Model	Description
6500-9001	Wall Mount Time Control Center with: BCD time control, impulse, synchronous wired and generator control for motor or generator carrier current systems. 120 or 240 VAC, 50 or 60 Hz operation.
6500-9002	Simplex 6500 front panel and electronics, all parts less housing, for service replacement in existing 6351 or 6400 surface mount or rack mount enclosure.

Simplex 6500 Series Features

Eight output circuit control

In addition to two clock correction circuits, the Simplex 6500 also provides six output circuits with their operation easily programmed for time, day-of-week, and action and with individual manual override control switches. The LCD readout indicates the status of each of the six circuits and when programming, it clearly indicates time, day of week, and the selected status.

Event scheduling

The Simplex 6500 has a default program set up of one basic 7-day program and nine alternate 7-day programs that can be scheduled on an annual basis for a total of ten programs, each having twenty program entries. If more than twenty program events are needed, they can be programmed using a keyboard-entered function. Up to one hundred events for each program can be programmed for a total of two programs. Each event can be programmed for all, or any combination of the output relays for the specific day of the week, or for all five weekdays, or for both weekend days, or for every day of the week. In addition, the events can be programmed in customized groups such as, Monday, Wednesday, and Friday only.

Each annual program, twenty program entries, has a start and end date, and an associated alternate program. This feature can be used to schedule any of the one to nine alternate, 7-day programs to be used by the Simplex 6500.

Secured access

The manual control switches and LCD are located behind a locked enclosure.

Time Reference Integration

The Simplex 6500 can be synchronized to receive GPS time reference for even greater accuracy.

GPS interface

The optional GPS/6400 Interface, Rev. B, enables the Simplex 6500 to receive time from GPS satellites. An antenna receiver module provides accurate time by locking the GPS/6400 Interface to the NIST traceable time, atomic clock, sent by the GPS system. The GPS/6400 communicates with the Simplex 6500 by its RS232 Interface.

Note: The Simplex 6500 is compatible with the GPS/6400 Rev. B Interface, only.



Figure 2: GPS / 6400 Rev. B interface

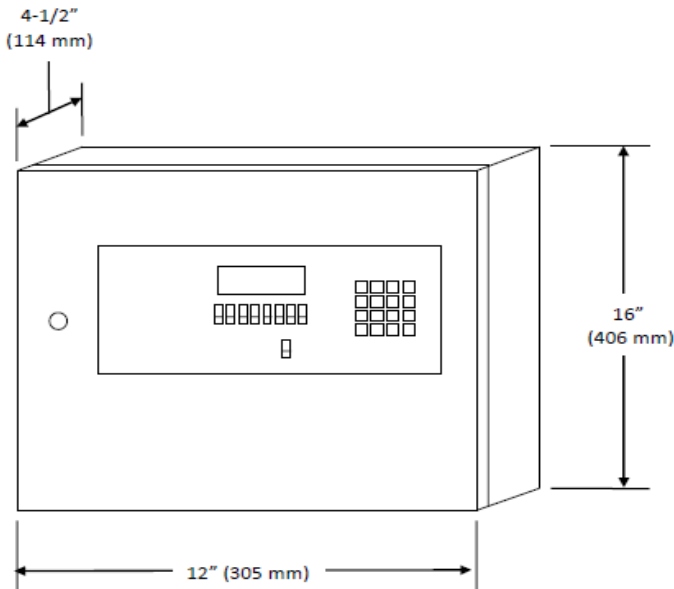


Figure 3: 6500-9001 dimensions

Specifications

Table 2: Specifications

Specifications	Rating
Input Voltage	120 or 240 VAC, 50 or 60 Hz, jumper selectable.
Input Current	0.2 A for basic operation. Add current for clock power and output control power.
Outputs	Eight relays, 6-SPST, 2-SPDT, rated at 5A 120VAC or 30VDC.
Finish	Finish: Black

Dimensions	Dimensions: 12" W x 16" H x 4.5" D (305 mm x 406 mm x 114 mm)
Weight	15.0 lbs. (6.8 kg.)
Time Base	AC Line Monitor, line frequency dependent DC Quartz \pm 30 seconds/month from 32° to 122°F (0° C to 50° C)
TCXO (Integral)	\pm 3 seconds/month from 32° to 122°F
Temperature Range	32° to 122°F (0° to 50°C)
Relative Humidity	95% non-condensing
BCD Output	\pm 15 V Data at 60 bps, 50 loads max
I/O Ports	1-RS232, 1 opto-isolated 12-24 AC/DC Sync input

Table 3: 6500 Time Control Center clock correction capacities

Specifications	Rating
Synchronous	Up to 70 clocks (120 VAC). Use 2088-series relays for additional clocks. Refer to data sheet S2088-0010.
Electronic	Practically unlimited; Refer to data sheet S6310-9112.
Digital BCD	Up to 50 clocks; use 2301 Series data line amplifiers for additional clocks. Refer to data sheet S2301-0002.
Impulse	Up to 33 clocks, power supply dependent.

Table 4: 6500 Technical publication reference

Specification	Rating
6500 Installation / Operating Guide	579-1301

Clock Correction Compatibility

The following synchronous clock models can be controlled by the Simplex 6500. The secondary clock correction mode is entered using the integral keypad and auto prompting display.

- American A4015D10
- ATS CC2000 Series Digital System Clocks
- Cincinnati D10
- Cincinnati D8
- Dukane 240 Series
- Dukane 24EF212, 24EF215
- Dukane 24EF214A
- Dukane 24SS
- Honeywell ST402A
- IBM 77 Series
- Lathem Type SS Wall Clocks
- National E-SRX Series
- Rauland 2460 Series
- Simplex 77 Series, 2310/6310-91xx and 92xx
- Standard Synchronous Wired
- Stromberg 3000