



# Master Time/Program Clock

## System Controlled Time

### 2000-MTC

#### FEATURES

- > User programmable
- > Eight program schedules
- > 64 time events per schedule
- > Automatic adjustment for daylight savings time
- > Four-digit time/event display
- > 12-hour AM/PM indication
- > 10 year battery backup
- > Surface, semi-flush or rack mountable

#### AGENCY APPROVALS

- > UL/cUL Listed
- > FCC Part 15, Class A/Industry Canada ICES-003, Class A

#### SPECIFICATIONS

- > 120 or 220/240V AC 50/60Hz
- > 50VA (< 0.5A @ 120V)
- > 32F to 175F (0C to 80C)
- > 12lb (5.4kg)

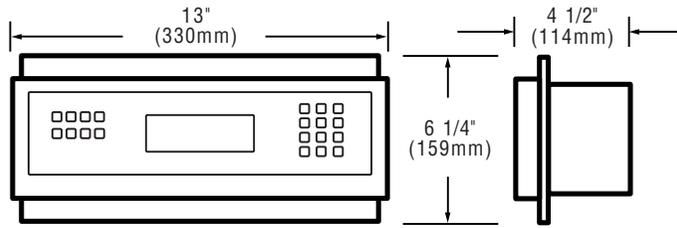
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The Edwards Catalog 2000-MTC Master Timer/Program Clock is a compact, microprocessor controlled clock capable of maintaining system time for Edwards digital clocks and many third-party secondary clocks. The unit consists of a display unit and power/relay that can be assembled in a surface mount configuration. The display unit has a digital display that shows the date and time and provides programming menus to guide the user through programming and operating modes. A 12 button key pad is used to manually enter commands and programming instructions. The front panel LEDs indicate control relay status. The 2000-MTC uses the Edwards 2000-DCT-REL for timing control.

All wiring to AC power and secondary equipment (clocks, bells, and zone controls) connect to terminal blocks within the power/relay unit backbox using quick connects supplied with the master clock.

Time synchronization is derived from the AC line frequency. The clock automatically detects the selection of 50 or 60 Hz. During power failures, accurate time is maintained by a quartz crystal supported by lithium battery backup. When AC power is restored, the clock's microprocessor calculates the amount of time lost and re-synchronizes the secondary clocks. In addition to the hourly and periodic synchronization of secondary clocks, the master clock can automatically adjust for daylight savings time.

The master clock has eight signal circuits, four of which can be designated for clock synchronization. Circuits not used for synchronization can be manually operated by the key pad, or automatically, according to the active schedule. Each relay circuit can be wired to a separate path to control signal devices in specific areas



**SECONDARY CLOCKS WHICH CAN BE OPERATED AND CONTROLLED BY REMOVABLE EPROM (supplied)**

Dukane	24SS Series, 24ISC, 24F200, 24750, 24F750A, 24D20, 24D20A, 24D40, 240 Series, Synchronous Wired
Lathem	Type SS, ISC 2-Wire/3-Wire, SS Modified
Cincinnati	D1, D2, D3, D4, D6, D8, D10
Simplex	77 Series 91-9, 93-9, 941-9, 943-9, 75 Series 91-4, 93-4, 941-4, 943-4
IBM	75 Series, 77 Series
Standard Electric	D10, D12, Impulse, Synchronous, AR-2A, AR-2, AR-3
Stromberg	3000, Impulse, Synchronous 56th Minute
Edwards	Synchronous E-1, Impulse, Dual Motor, 2000-DGT
Faraday	Impulse, Synchronous
Rauland	2410 and 2422 Digital
Condor	2412 Digital
National	Synchronous Wired
Honeywell	ST402A
Others	Electronic Coded, Straight Frequency

of the facility.

The clock can be programmed with up to eight schedules, each containing up to 64 multi-functional events. Schedules can be simultaneously active, providing up to 512 multi-functional events. Each of the 64 events (per schedule) include the hour, minutes, days of the week, desired circuits, and duration of activation. Each event can be set for 1 to 99 seconds or, using start and stop times, separated by 23 hours and 59 minutes. A table of sixteen holidays can be created so that normal schedules can be easily modified and automatically restored at the end of each holiday. The clock also maintains a schedule of up to 16 schedule-change dates to accommodate the automatic activation of seasonal schedule changes.

The master clock supports four modes of operation: clock, program, run, and sleep. Clock mode displays the time and date and scans the keypad for user input and the communication ports for external data. Program mode interacts with the user during manual programming procedures, presenting the menus and saving user instructions in protected memory. Run mode executes whenever AC power is applied to the master clock. In run mode, secondary clocks are synchronized and user-programmed bell/zone schedules are carried out. If AC power to the clock is interrupted, the clock enters sleep mode, in which programmed instructions and setup parameters are preserved and only the internal real-time clock remains active to maintain the date and time. The master clock can be programmed from the front panel or from a computer using the supplied software.