

Time Control Equipment

Rauland

MODEL: 2421 DIGITAL ELAPSED TIMER/CLOCK (FLUSH MOUNT)



2421 Digital Elapsed Timer/Clock (Flush Mount)

FEATURES

- **VERSATILE PERFORMANCE:** Serves as an Accurate Digital Elapsed Timer, a Digital Countdown Timer, a Digital Secondary Clock, or a Digital Stand-Alone Clock. Easy to Operate. Exceptionally Legible Display
- Ideal for Use in Hospitals (for Timing Applications in Operating Rooms and in Intensive Care Units)
- Useful in Schools for Timing Academic Tests, Experiments, Debating Events, etc
- Practical for Courtroom Use, to Limit Time Taken for Testimony, Argument, etc
- Clock (Secondary or Stand-Alone); Keeps Track of Current Time Even When Used as a Timer

SPECIFICATIONS

Type: Digital
Display: 4-digit, 7-segment red LED
Character Height: 1.8" (4.57 cm)
Character Width: 1" (2.54 cm)
Power Requirements: 300 ma from 24VAC,
50 Hz or 60 Hz source
Dimensions: Flush Mount:
11" (27.94 cm) wide
5-1/2" (13.97 cm) high
Weight: Flush Mount: 1.63 lb. (0.24 kg)

Associated Equipment:

All Rauland Master Program Clocks
2415 Power Supply (accommodates up to 25 2420/2421 clocks operating at 24V AC)
2416 Power Supply (accommodates up to 25 2420/2421 clocks operating at 120V AC)
2417 Adapter Module (required for correction in time control systems using both digital and analog secondary clocks)
2422 Surface-Mount Digital Clock/Timer
2423 Elapsed Timer Switch Kit
Optional Set Switch Kit, required for Countdown operation (available on special order only)

DESCRIPTION

The Rauland Model 2421 Digital Elapsed Timer/Clock is a versatile, highly accurate instrument designed to operate as an Elapsed Timer or a Countdown Timer when used with associated switch kit(s); serves also as a Digital Secondary Clock, or as a Digital "Stand-Alone" Clock. Operation as a Digital Elapsed Timer: Counts up to 99:59 (hours/minutes). Counts minutes/seconds up to one hour; then counts hours/minutes which is indicated by an overflow LED. For Elapsed Timer function, a Rauland Model 2423 Switch Kit is required to provide "Count/Hold" and "Reset" functions. When is completed, the display shows current time once the "Reset" button is pressed. Recommended for 24VAC operation using a power

transformer providing 24VAC at 300 Ma minimum. The Elapsed Timer will interface with Rauland Responder Nurse Call Systems with Code Blue operation.

Operation as a Countdown Timer: Counts down from 99:59 (minutes/seconds). Requires the use of a Rauland Model 2423 Switch Kit to provide "Count/Hold" "Reset," and a Set Switch Kit to provide "Fast," "Slow" set for counting up to desired countdown starting time. An alarm output is activated when countdown reaches 00:00; this may be used to directly drive a Sonalert and device. When "Reset" button is pressed, the display again shows current time and the alarm output is reset.



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Architect and Engineer (A&E) Specifications available online at customerconnection.rauland.com Specifications subject to change without notice.



DESCRIPTION (CONT.)

Operation as a Secondary Clock: Functions accurately with 12/24 hour display, operating from 24/120V AC, 50-60 Hz. Features full 1.8" (4.57 cm) high bright LED numeral display. Provides for automatic correction by the Master program clock every 24 hours, after a power failure, or whenever time is changed on the Master. If the clock is to be used for Elapsed Timing, the associated model switch kit(s) must be used and four wires (rather than the usual two) are required for power and correction functions.

Operation as a "Stand-Alone" Clock: Functions exactly as above, except that buffered inputs are incorporated to accomplish the "Fast" and "Slow" set functions provided by an optional Set Switch

ARCHITECTS AND ENGINEERS SPECIFICATIONS

The Rauland Model 2421 Digital Elapsed Timer/Clock shall operate as an Elapsed Timer or Countdown Timer when used with the required switch kit(s), and shall serve also as a Digital Secondary Clock or a Digital "Stand-Alone" Clock. Each of these functions shall operate as follows:

Digital Elapsed Timer: The unit shall count up to 99:59 (hours/minutes). It shall count minutes/seconds up to one hour, and shall then count hours/minutes to be indicated by an overflow LED. A Rauland Model 2423 Switch Kit shall be required to provide "Count/ Hold" and "Reset" functions. When counting is completed, the display shall show current time once the "Reset" button is pressed. The unit shall be operated on 24VAC at 300 Ma minimum. The Elapsed Timer shall interface with Rauland Responder Nurse Call Systems with Code Blue Operation.

Countdown Timer: The unit shall count down from 99:59 (minutes/seconds). A Rauland Model 2423 Switch Kit shall be required to provide "Count/Hold" and "Reset" functions. A special Set Switch Kit shall also be required to provide "Fast" and "Slow" functions to count up to required countdown starting time. An alarm output shall activate when countdown reaches 00:00; this shall be capable of driving a sonalert device. The display shall show current time and the activated alarm output shall reset when the "Reset" button is pressed.

Kit. This kit must also be used if the countdown function is desired. Five wires are required for power and time set functions.

While most Elapsed Timer/Clock installations will be flush-mounted, surface mounting is readily accomplished by using a Rauland Model 2422 Plastic Surface Mount Clock/Timer. The flush-mount 2421 unit installs in a 5-gang masonry box (such as Raco No. 694). For Elapsed Timer operation, Switch Kit 2423 is required. For Countdown Timer operation, a 2423 Switch Kit and an optional Set Switch Kit are required. Each Switch Kit mounts in a single-gang electrical box.

Secondary Clock: The unit shall function as a digital clock with 12/24 hour display. It shall operate from 24/120V AC, 50-60 Hz. The clock shall have a full 1.8" (4.57 cm) high red LED numeral display. Automatic correction by the Master program clock shall be provided every 24 hours, after a power failure, or whenever time is changed on the Master clock. If the unit is to be used for Elapsed Timing or Countdown Timing the associated Switch Kit(s) shall be used, and four wires (rather than the usual two) shall be required for power and correction functions.

"Stand-Alone" Clock: The unit shall function as a digital clock with 12/24 hour display. It shall operate from 24/120V AC, 50-60 Hz. The clock shall have a full 1.8"(4.57 cm) high red numeral display. Buffered inputs shall be incorporated to provide "Fast" and "Slow" set functions. Five wires shall be required for power and set functions.

For flush mounting, the Digital Elapsed Timer/Clock shall be Rauland Model 2421. For surface mounting, a Rauland Model 2422 Clock/Timer shall be required. The flush-mount unit shall install in a 5-gang masonry box (such as Raco No. 694). For Elapsed Timer operation, an associated Rauland Model 2423 Switch Kit shall be required. For Countdown Timer operation, a Rauland Model 2423 and a special Set Switch Kit shall be required. These Switch Kits shall each mount in a standard singlelegang electrical box.



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