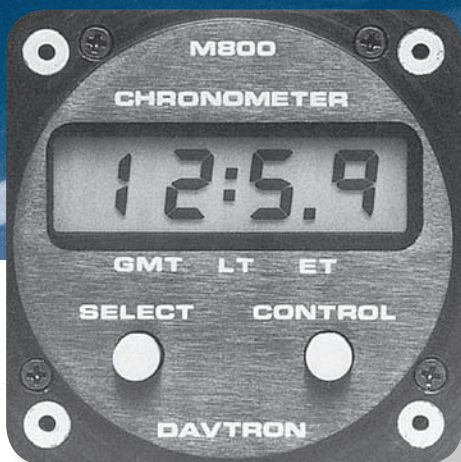# DIGITAL CLOCK

GREENWICH MEAN TIME
LOCAL TIME
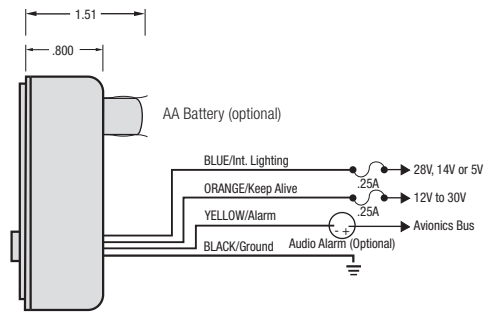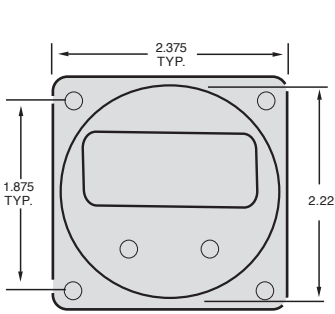Elapsed Time - Count Up, Count Down, Alarm

FEATURES

- Two button control system is natural and error free. Setting operations are identical for both alarm and time setting (US patent #4,486,077).

- Greenwich Mean Time in 24 hour format.

- Local time in 12 hour format, 24 hour option when ordering.

- Elapsed Time counter, from one second to 99 hours, 59 minutes.

- Elapsed Time countdown timer, from one second to one hour.

- Elapsed Time alarm activated when countdown reaches zero.

- Alarm flashes display and has external output for optional audio alarm.

- **Liquid Crystal Display** has high contrast in bright sunlight. Display has a lighting system that provides uniform night illumination. The display has an ultraviolet filter to prevent sunlight damage. The LCD used in the M800 has high humidity protection and uses a fluid operable over a wide temperature range.

- A 4 MegaHertz crystal precision time reference.

Mounting Hardware 4-40x³/₈

MODEL 800 OPERATION

The SEL button selects what is to be displayed on the four digit window and the CTL button controls what is being displayed. Pressing select sequentially selects GMT, Local Time, Elapsed Time and back to GMT. The control button starts and resets Elapsed Time when momentarily pushed. Normal operation of the M800 cannot accidentally reset time.

Setting GMT

Select GMT for display in the four digit window with the SEL button. Simultaneously press both the select and control buttons to enter the set mode. The tens of hours digit will start flashing. The control button has full control of the flashing digit and each button push increments the digit. Once the tens of hours is set the select button selects the next digit to be set. After the last digit has been selected and set with the control button, a final push of the select button exits the mode. The lighted annunciator will resume its normal flashing, indicating the GMT clock is running.

Setting LT

Select Local Time, LT, using the SEL button. Simultaneously push the SEL and CTL buttons to enter set mode. The tens of hours digit will start flashing. The set operation is the same as for GMT, except that minutes are already synchronized with the GMT clock and cannot be set in Local Time.

Test Mode

Hold the SEL button down for three seconds and the display will indicate 88:88 and activate all three annunciators.

Elapsed Time Count Up

Select ET for display. Pressing the CTL button will start ET counting. Elapsed time counts up to 59 minutes, 59 seconds, and then switches to hours and minutes. It continues counting up to 99 hours and 59 minutes. Pressing the CTR button again resets ET to zero.

Elapsed Time Count Down

Select ET for display and enter set mode by pressing both buttons. The countdown timer can now be set. Entering the time is identical to GMT time setting. When the time is entered and the last digit is no longer flashing the clock is ready to start the countdown. Momentarily pressing the CTL button starts the countdown. When the count reaches zero the displays flash and the external alarm is activated. Pressing either SEL or CTL will deactivate the alarm. ET continues counting up.

FIELD OPTION CHANGES

When changes are made the clock must be grounded to the soldering iron or warranty may be void.

Local Time: LT may be switched from 12 to 24 hour format by removing the case and jumpering 24.

Keep Alive Input: 12V to 30V

Alarm Output: Open collector sink 25 MA.

SPECIFICATIONS

- **Greenwich Mean Time**: 24 hour format.

- **Local Time**: 12 hour format. 24 hour option offered.

- **Elapsed Time Count Up**: Starts in minutes, seconds, then hours, minutes up to 99:59 hours.

- **Elapsed Time Alarm**: Activates at zero when counting down.

- **Internal Lighting**: 230 MA at 5V, 120MA at 14V, 50MA at 28V (Specify voltage when ordering).

- **Keep Alive Current**: .0003 Amps. 14V, .001 Amps. 28V.

- **Voltage**: 12V to 30V (Specify voltage when ordering).

- **Crystal Reference**: -40C to +60C .001%

- **Warranty**: 1 year.

- **Option**: AA Memory Battery (optional).