

# SmartLid

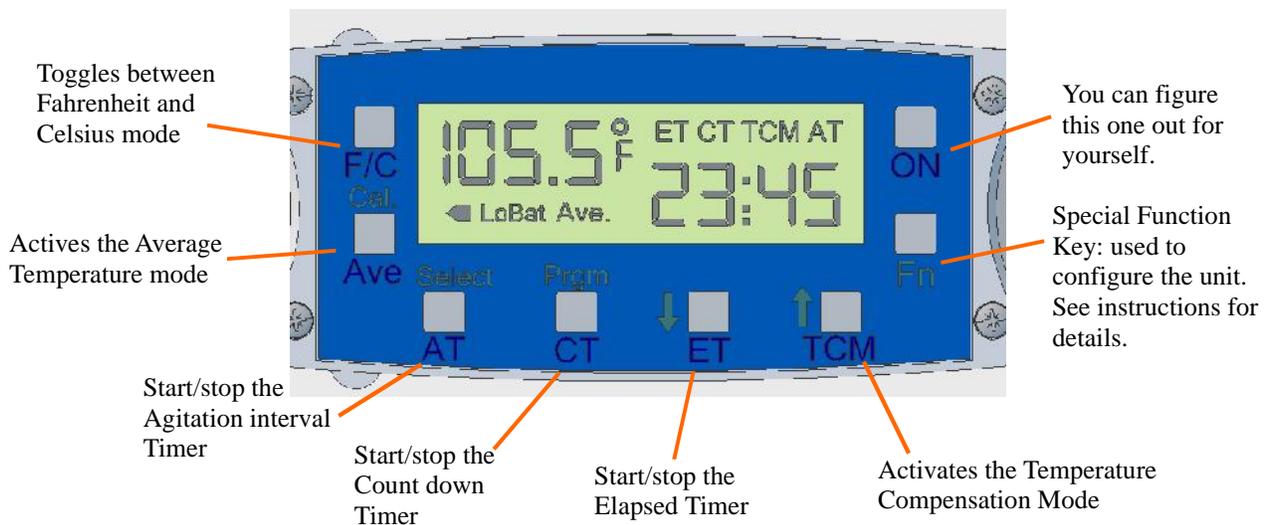
## User's Guide

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Stearman Press LLC

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### PRELIMINARY DRAFT SUBJECT TO REVISION

#### Overview:



#### Getting Started

Press the **ON** button to activate the unit. The unit will perform a short self test. If the test passes, all icons and digits will turn on for two seconds and the beeper will sound once.

#### Error Codes:

“--.- E”: the temperature sensor has failed and must be returned to the factory for repair.

“LoBat”, (rest of display blank): The battery is too low for reliable operation. Replace the two A76 batteries. Note: these are known by numerous other designations: LR44, 357 etc.

**Do not use lithium Batteries!**

If neither of the timers is running, the unit will power off automatically after twenty minutes.

## *Temperature Functions*

### **Temperature Scale:**

Press the **F/C** button to select the desired temperature scale. This will toggle the display between Fahrenheit and Celsius.

### **Average Temperature:**

Press the **Ave** button to toggle between the average temperature and the instantaneous temperature. The **Ave** icon will be shown on the display. Note: the average temperature is calculated from the start of either the Count Down Timer or Elapse Timer.

Reset: Press and hold the **Ave** button until the **Ave** icon starts blinking. This will reset the average calculation. Note: either the CT or ET must be running.

### **Temperature Calibration:**

Press the **Fn** and **Ave** buttons simultaneously to enter the Calibration mode. The temperature display will start blinking.

Press the **TCM** button to increase the displayed reading.

Press the **ET** button to decrease the displayed reading.

To save the calibration, press the **Fn** button.

## *Timer Functions*

The SmartLid has an Elapsed Timer, a Countdown Timer and an Agitation interval Timer. Note: you cannot use both the Elapsed Timer and Countdown Timer at the same time.

### **Elapsed Timer (ET)**

Press the **ET** button to start the elapsed timer.

Press the **ET** button again to reset the elapsed timer.

## Countdown Timer (CT)

### Programming the CT:

Press the **CT** and **Fn** buttons simultaneously to enter the CT programming mode. The left most digit in the Time display will start blinking.

Press the **CT** button to increment the value. Note: the value will “roll over” to 0 if you press the button often enough.

Press the **Fn** button to accept the value. The next digit will start blinking.

Repeat the selection process for all four digits.

The CT value will be saved until changed.

Press the **CT** to start the CT. Press the **CT** again to reset the timer to its programmed value. Press the button again to start the CT.

The alarm buzzer will sound when the CT reaches zero. Press the **CT** to stop the buzzer and reset the CT.

### Agitation interval Timer

The SmartLid has an Agitation Interval Timer to remind you to agitate the tank.

The timer can be set to either 30 seconds or 60 seconds.

The buzzer will sound three beeps every time the agitation interval is reached.

Press the **AT** button to start the Agitation Timer. Pressing the **AT** button again, will stop and reset the AT.

Hold down the **Fn** button and press the **AT** to toggle the agitation interval. Release the **Fn** button again to save the new value.

## *Temperature Compensation Mode (TCM)*

The TCM will automatically adjust the timers based on the actual temperature of the tank.

The reference temperature used is 68° F (20° C).

When active, the timers will run slower if the actual temperature is below the reference temperature and will run faster if the actual temperature is above it.

The calculations use the standard temperature tables published by numerous film manufacturers.

If you're using the CT, the set time will not change. However, the timer will run faster or slower based on the actual temperature.

The TCF does not effect the Agitation Timer. It always runs in real time.

Press the  button to activate the TCM. The TCM icon will be displayed.

Pressing the  button again will cancel the TCM function and all timers will begin counting in real time. Note: the timers will not make any adjustments for the time shift that occurred while the TCM mode was active.