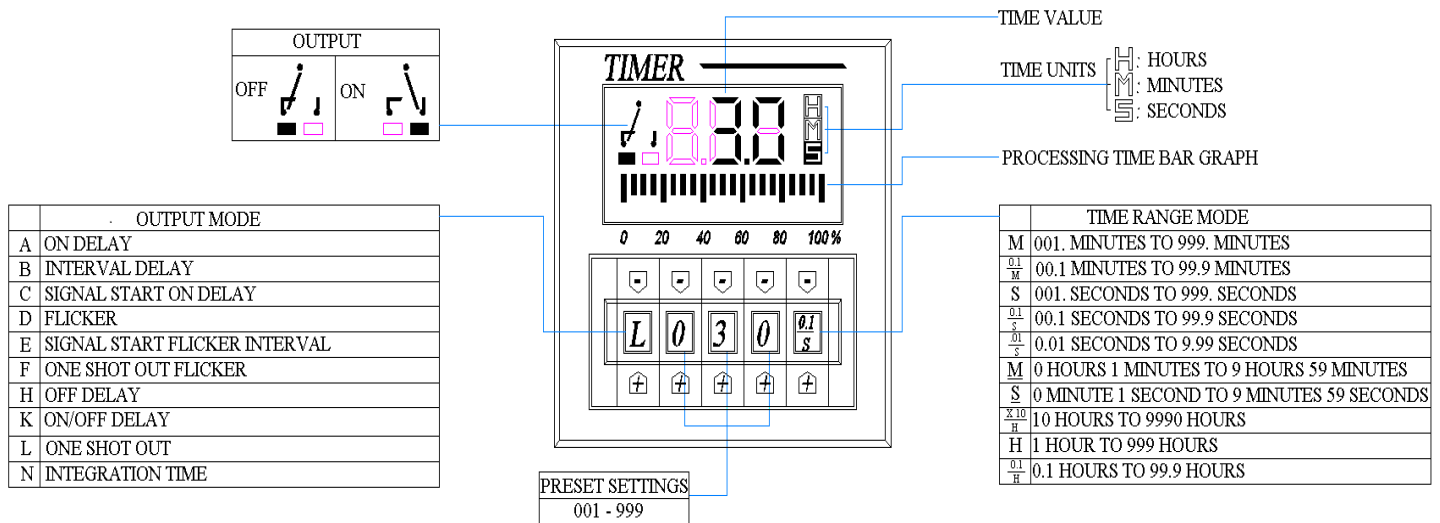


# Product Information Sheet



## Proper use of Precision Timer Modules

**Description:** This Timer Module is a self contained, digital LCD, multiple functions precision timing control device that has been specifically developed for use with many of the American Beauty® Resistance Soldering Systems and Power Units that are available.



Although there are several different functions available for use, the “L One Shot Out” function is recommended as the most appropriate type of operation for most of the standard Resistance Soldering applications that it is intended to be used on.

**Functions:** Choosing one of the available functions is achieved by setting the **output mode selector** to the appropriate letter designator as shown on the chart above. Each of the available functions of this unit is described below. The functions that are shown as (*Continuous*) will require maintaining a continuous depression of the footswitch throughout the completion of their respective cycles. The functions that are shown as (*Momentary*) require only a momentary depression of the footswitch to initiate their respective cycles.

**A On Delay** = Time proceeds when the footswitch is depressed. The output is energized at the completion of the preset and remains on as long as footswitch remains depressed. Upon release of the footswitch the output is no longer energized and the counter returns to zero. (*Continuous*)

**B Interval Delay** = Time proceeds and the output is energized when the footswitch is depressed. The output is energized for the duration of the preset as long as the footswitch remains depressed. Upon release of the footswitch the output is no longer energized and the counter returns to zero. (*Continuous*)

**C Signal Start On Delay** = Time proceeds when the footswitch is depressed. The output is energized at the completion of the preset and remains on until the power is interrupted or the output mode is changed. (*Momentary*)

**D Flicker** = Time proceeds when the footswitch is depressed. The output becomes energized at the completion of the first preset cycle and remains energized from the beginning until the end of the second preset cycle. The output is off during the third cycle, then energized again during the fourth, etc. This OFF-ON-OFF timed cycling function will repeat as long as the footswitch remains depressed. Upon release of the footswitch the output is no longer energized and the counter returns to zero. (*Continuous*)

**E Signal Start Flicker Interval** = Time proceeds and the output is energized when the footswitch is depressed. The output is energized for the duration of the first preset cycle. It then turns off and remains off for the duration of the second preset cycle. The output is energized during the third cycle and off again during the fourth, etc. This ON-OFF-ON timed cycling function will repeat until the power is interrupted or the output mode is changed. (*Momentary*)

# Product Information Sheet



## *Proper use of Precision Timer Modules*

**F** One Shot Out Flicker = Time proceeds when the footswitch is depressed counting from zero to the preset value. The output energizes as one shot (0.3 Seconds) at the end of the preset cycle, then resets to zero and begins counting again. The cycle will repeat in this manner until the power is interrupted or the output mode is changed. (*Momentary*)

**H** Off Delay = The output is energized when the footswitch is depressed. The time proceeds when the footswitch is released and the output is energized for the duration of the preset. If the footswitch is depressed again during the cycle the output will remain energized and the counter will hold at zero. The time proceeds again upon release of the footswitch and the output is energized for the duration of the preset. (*Momentary*)

**K** On/Off Delay = Time proceeds and the output is energized when the footswitch is depressed. The output is energized for the duration of the preset as long as the footswitch remains depressed. Releasing the footswitch will reset the counter to zero and begin the energized cycle again. Each time the footswitch is either depressed or released the counter will reset to zero and the energized cycle will begin. (*Continuous*)

**L** One Shot Out = Time proceeds and the output is energized when the footswitch is depressed. The output is energized for the duration of the preset. Releasing the footswitch will not interrupt or interfere with the active cycle. After the completion of the preset cycle the footswitch can be depressed again to start the next cycle. The counter is returned to zero and a new energized cycle begins each time the footswitch is depressed. (*Momentary*)

**N** Integration Time = Time proceeds when the footswitch is depressed and held. The output is energized after the completion of the preset cycle and remains energized until power is interrupted. Releasing the footswitch during the preset cycle will interrupt the counter, which will resume when the footswitch is again depressed. Releasing the footswitch after the output is energized will have no effect on the output, which remains energized until the power is interrupted.

### Specifications:

Input / Output Voltage Rating:	110-120 VAC 50/60 Hz (also available in 220-240 VAC 50/60 Hz by request).
Output Modes Available:	A, B, C, D, E, F, H, K, L and N (specific details are provided above).
Output Device Operating Limits:	American Beauty® Resistance Soldering Power Units @ 0 to 3000 watts.
Ambient Operating Temperature:	-10 to 55°C (at non-freezing status).
Ambient Operating Humidity:	35 to 85% Relative Humidity.
Insulation Resistance:	100 M ohms Min @ 500VDC between power input terminal and control output terminal.
Dielectric Strength:	2000VAC 50/60Hz for 1 minute between power input terminal and control output terminal.
Noise:	±2KV the square wave noise (pulse width : 1μs) by the noise simulator.
Mechanical Service Life:	Minimum rating is 10,000,000 operations.
Electrical Service Life:	Minimum rating is 100,000 operations @ 120VAC 10A (resistive load).

Setup: The Precision Timer Module may be plugged directly into a standard 110-120VAC three wire grounded 5-15Nema-type outlet. The Footswitch should be plugged into the low voltage 3.5mm receptacle that is located on the lower front panel of the Timer Module. The American Beauty® Resistance Soldering Power Unit that you intend to use should be plugged into the 5-15 receptacle located on the front of the Timer Module.

Be sure to verify the output mode selection before you begin operating the Timer Module, remember that the exact output operation will be determined by the specific output mode that has been selected.

**WARNING: DUE TO THE RISK OF ELECTRICAL SHOCK HAZARDS, YOU SHOULD NEVER OPEN THE TIMER MODULE HOUSING WHEN THE POWER CORD IS PLUGGED IN. THERE ARE NO USER SERVICEABLE PARTS INSIDE THE TIMER MODULE. THIS UNIT IS NOT DESIGNED FOR USE AS A SAFETY DEVICE, BE SURE TO INSTALL A PROPER FAIL-SAFE DEVICE IF USED FOR APPLICATIONS WHERE SERIOUS HUMAN INJURY OR PROPERTY DAMAGE CAN RESULT. NOT DESIGNED FOR OUTDOOR USE.**

**NORMAL USE OF THIS PRODUCT IS LIKELY TO EXPOSE THE USER TO SOLDERS CONTAINING LEAD, WHICH IS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS (OR OTHER REPRODUCTIVE HARM) OR OTHER PROPOSITION 65 LISTED CHEMICALS.**