

## Solid State Timers and Controllers



5103

# Countdown Timer Remote Start

The 5103 is an Artisan 4970 controller with the addition of three preset times and a remote Start/Stop input. This highly flexible countdown interval timer with digital display controls a set of high current output contacts. The timing cycle range can be configured for the following: 00:01-99:59 Minutes:Seconds, 00:01-99:59 Hours:Minutes, 0001-9999 Seconds, and 00.01-99.99 Seconds. The two arrow buttons on the front panel are used to set the time, the Up button increases the time and the Down decreases it. The longer a button is held down the faster the rate at which the time value will change, the time value

rolls around at both ends of the time range. The A, B, and C buttons allow the user to store and recall up to 3 time values providing simplified switching between different cycle time values.

The remote Start/Stop input performs multiple functions. Closing the Start/Stop input while the timer is idle will energize the output power relay contacts and the controller begins counting down the time on the display, once the display reaches 0 the contacts de-energize and the unit alarms per it's configuration option. Closing the Start/Stop input again while the controller is timing will pause the controller at the current time and de-energize the output relay contacts. Closing the Start/Stop input while in pause mode causes the output relay to energize and the controller continues timing from the point at which it was paused. Should the Start/Stop input be closed for longer than two seconds while in pause mode the controller will reset and the display will return to the original starting time.

Should power fail during a timing cycle the controller remembers the last time value and will recover upon restoration of power dependant on its configuration. The 5103 always remembers the last interval time programmed and when first powered up resets to that time. The LED above the 4 digit display flashes during the timing cycle to indicate timing and is on continuously when the cycle is ended. The 5103 can be configured with a variety of time ranges, timing adjustment, alarming, power recovery, and power conservation options, see the second page for details. The 4 digit LED display is available in Red (standard), Green, and Blue.

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Operating Voltage: 12VDC -10/+20%, 115VAC ±15%, 230VAC ±15%, 24VAC ±10%, 50/60 Hz for AC.

Current Consumption: See table for operating current at nominal input voltages; Idle = display on,

Timing = display & relay on, Standby = display off (option LP:02 selected)

Timing Accuracy: ±0.5% of set time.

**LED Digital Display:** Four digit LED, 0.56" characters. Red = standard, green and blue available. **Timing Cycle Memory:** All data stored in non-volatile memory, 10 yr. min. retention with no power.

Audible Alarm: Solid state alarm operating dependant on unit configuration.

Output Contact Ratings: SPDT Power relay contacts. Rated for 12A inductive or resistive at 125 VAC,

10A at 277 VAC and 30 VDC

Mounting: 2.63 sq. cutout accepts timer which is secured with supplied bracket & nut. Mounting

nut must be tightened to 3 inch pounds maximum.

Wiring: 0.25" Quick Connect terminals.

Operating Temperature: 0°C to 70°C.

Data Sheet Revision Date: December 18, 2014

#### Ordering Information . . . . . . .

Model	- Voltage -	Display Color
5103	-1 = 12V DC -2 = 115V AC -3 = 230V AC -4 = 24V AC	-R = Red -G = Green -B = Blue

	Operating Current (mA)		
	ldle	Timing	Standby
12V DC	55	135	20
115V AC	22	30	19
230V AC	10	15	8.0
24V AC	105	150	95

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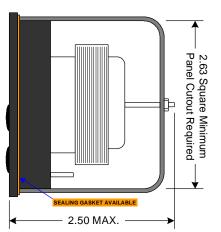
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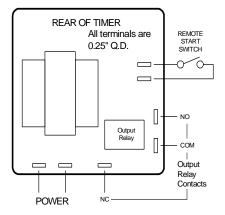


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The 5103 controller provides many configuration options allowing the OEM to customize it's operation for their application. Holding the Start/Stop button when applying the input power places the controller into configuration mode. In this mode, the controller displays a two character code and a two digit value for each option. Closing the Start/Stop input advances to the next option. Press the Up or Down buttons to change the option code or time value according to the range of the item being configured. Once the options have been set, remove and re-apply power with no buttons pressed to operate the controller with its new configuration. *The 5103 is supplied from the factory configured with the italicized option codes below and all time values set to 0.* 

Timing Cycle Range		
rA:00 Minutes:Seconds, 00:01 to 99:59		
rA:01	Hours:Minutes, 00:01 to 99:59	
rA:02	Seconds 1 to 9999	
rA:03	Seconds 0:01 to 99.99	
rA:04	Minutes 1 to 9999	
rA:05	Hours 1 to 9999	

Cycle Time Adjustment	
CA:00	Full time range available
CA:01	Adjustable between limits
CA:02	Timing fixed

Lower Limit or Fixed Time		
	Disabled by code CA:00	
XXXX	Displays Lower Time Limit for CA:01	
XXXX	Displays Fixed Time for CA:02	

Upper Limit Time		
	Disabled by code CA:00 or CA:02	
XXXX	Displays Upper Time Limit for CA:01	
Output Type		

Output Type	
Ot:00	Output relay on during timing
Ot:01	Relay on for end notification length
Ot:02	Relay on for 1 second @ end
Ot:03	Relay always off

Cycle End Notification		
CE:00	Triple beep for 5 Seconds	
CE:01	Triple beep until key pressed	
CE:02	Continuous tone for 5 Seconds	
CE:03 Continuous tone until key pressed		
CE:04 -	CE:04 - CE:07 Same as above with display flash	

End Notification Length		
EL:05	Length of notification, default = 5 sec	

LED Display Power		
LP:00	LED display always on	
LP:01	Display dims after 1 minute in idle mode	
LP:02	Display OFF after 1 minute in idle mode	

Recovery from Fower Interruption		
Pr:00	Pr:00 Return to last time, output on, continue timing	
Pr:01	Return to last time, output off, in pause mode	
Pr:02	Return to full cycle time, ready for new cycle	

Alarming Notification		
AL:00	No alarming enabled	
AL:01	Triple beeping	
AL:02	Continuous tone	
AL:03	Triple beeping with display flash	
AL:04	Continuous tone with display flash	

Alarm Duration	
Ad:00	Disabled by code AL:00
Ad:XX	Alarm length in seconds, 01 - 99
Alarm Time	

Alarm Time	
	Disabled by code AL:00
XXXX	Displays alarm time for AL:01-AL:04

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