



# Solid State Timers and Controllers

## 4973

## Countdown Timer Remote Start



The 4973 is an Artisan 4970 controller with 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 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 4973 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 4973 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.*

### Specifications

- 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
4973	-1 = 12V DC	-R = Red -G = Green -B = Blue
	-2 = 115V AC	
	-3 = 230V AC	
	-4 = 24V AC	

	Operating Current (mA)		
	Idle	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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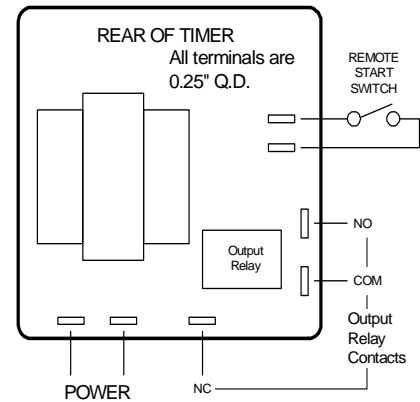
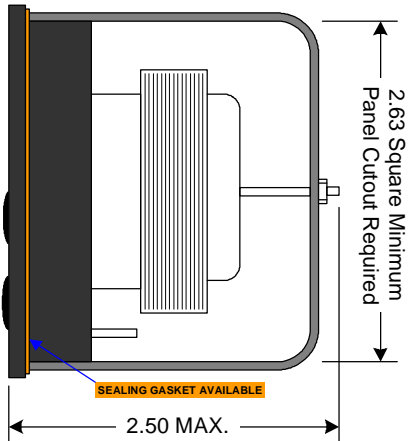
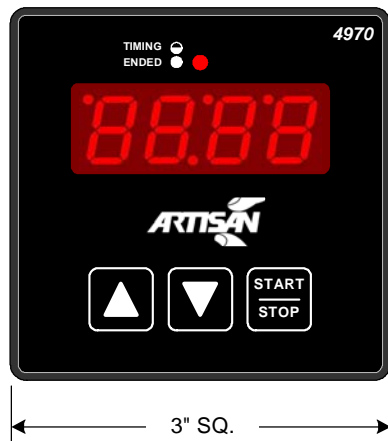
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Mechanical..... Wiring.....



## Configuration

The 4973 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 4973 is supplied from the factory configured with the italicized option codes below and all time values set to 0.*

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

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

Time Adjustment Increment	
<i>t:XX</i>	Time increment value, default = 1

Lower Limit or Fixed Time	
<i>----</i>	Disabled by code <i>CA:00</i>
<i>XXXX</i>	Displays Lower Time Limit for <i>CA:01</i>
<i>XXXX</i>	Displays Fixed Time for <i>CA:02</i>

Upper Limit Time	
<i>----</i>	Disabled by code <i>CA:00</i> or <i>CA:02</i>
<i>XXXX</i>	Displays Upper Time Limit for <i>CA:01</i>

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

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

End Notification Length	
<i>EL:05</i>	Length of notification, default = 5 sec

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

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

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

Alarm Duration	
<i>Ad:00</i>	Disabled by code <i>AL:00</i>
<i>Ad:XX</i>	Alarm length in seconds, 01 - 99

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

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