

## In-Wall Timer - 7-Day Heavy-Duty Programmable Timer, 120-277 VAC, 15A, Light Almond

Item ST01A



### PRODUCT DESCRIPTION

Highly versatile Heavy-Duty Timers are ideal for any application that requires a simple or complex ON/OFF schedule, regardless of load. No neutral connection is required. \*NOTE: Not for use with sunlamps, saunas, or loads that could cause personal injury if timed incorrectly.

### FEATURES

- ▶ Versatile 7-day programmable schedules with up to 40 ON/OFF events
- ▶ Astronomic clock feature determines dawn and dusk times
- ▶ Automatic Daylight Saving Time (DST) adjustment
- ▶ Random mode varies ON/OFF schedule to provide a "lived-in" appearance
- ▶ Single or 3-way switch compatible installation
- ▶ Incandescent/fluorescent/CFL/LED compatible
- ▶ Isolated switch allows timer to be used with any load type, including AC and DC loads
- ▶ Replaceable CR2 lithium battery provides up to three years of operation
- ▶ No neutral wire connection enables easy retrofitting and quicker installation
- ▶ Decorator switch plate not included

### APPLICATIONS

- ▶ Indoor Lighting Control
- ▶ Air Movement & Ventilation
- ▶ Outdoor Lighting Control

### TECHNICAL DATA

#### General

Model Number	ST01A
Description	7-Day Heavy-Duty Programmable Timer, 120-277 VAC, 15A, Light Almond
UPC Code	078275127579
Brand	Intermatic
Country of Origin (Intermatic)	THAILAND
Warranty Period	1-Year limited

#### Control Specifications

Minimum ON/OFF Times	1 min
Maximum ON/OFF Operations	40
Operation Mode	24 hour
Operation Features	Astronomic; Daylight Saving Time
Mechanism Type	Digital/Electrical
Backup Type	Battery
Backup Protection Time	3 Years
Battery Type	CR2 Lithium
Battery Service Type	Replaceable
Application Compatibilities	Incandescent; Fluorescent; CFL; LED

#### Mechanical Specifications

Wall Plate Configurations	Single-Gang
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**Dimensions**

Product Dimensions (H x W x D) in	4.125 x 1.75 x 1.8125 in
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**Material Specifications**

Color	Light Almond
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**Load Ratings**

Resistive Heater	15 A, 120-277 VAC
Tungsten (Incandescent) Range(s)	1800 W, 120 VAC; 1248-1662 W, 208-277 VAC
Ballast Fluorescent	8 A, 120 VAC; 4 A, 208-277 VAC
Electronic Ballast LED	5 A, 120 VAC; 2 A, 277 VAC
DC Loads	4 A, 12 VDC; 2 A, 28 VDC
Motor Load Ratings Ranges	1 HP, 120 VAC; 2 HP, 240 VAC
Max Load Handling Capability	15 A
Inductive Load Ratings Ranges	8 A, 120 VAC, 50/60 Hz; 4 A, 208-277 VAC, 50/60 Hz

**Electrical Specifications**

Input Voltage Range(s)	120-277 VAC, 50/60 Hz
Wiring Configurations	Single; 3-Way
Switch Type	SPST-NO
Neutral Connection Required	No

**Environmental Specifications**

Temperature (operation)	32 - 104 °F / 0 - 40 °C
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**Packaging**

Shipping Weight (lbs)	0.4
Unit Carton Dimensions (H x W x D) in	4.625 x 2.125 x 2.875 in

**Standards and Certifications**

CSA Certification	cCSAus
Other Certifications and Compatibilities	Title 20; Green Energy
California Proposition 65	DEHP
RoHS Certification	X

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## ACCESSORIES



101ST2208A  
ST01A Light Almond Replacement Battery Tray



6ST3057  
ST01 Light Almond Replacement Door



Spring Grove, Illinois 60081  
www.intermatic.com

# ST01/ST01K/EI600

In-Wall Timer with Astro Feature

## Installation and User Guide

### RATINGS

	ST01/ST01K	EI600
Operating Voltage	120-277 VAC, 50/60 Hz	
Resistive (heater)	15 A, 120-277 VAC	20 A, 120-277 VAC
Tungsten (incandescent)	15 A, 120 VAC; 6 A, 208-277 VAC	
Ballast (fluorescent)	8 A, 120 VAC; 4 A, 208-277 VAC	16 A, 120-277 VAC
Motors	1 HP, 120 VAC; 2 HP, 240 VAC	
DC Loads	4 A, 12 VDC; 2 A, 28 VDC	
Operating Temperature	32° F to 104° F (0° C to 40° C)	
Dimensions	4 1/8" H x 1 3/4" W x 1 13/16" D	

### SAFETY SECTION

#### WARNING

##### Risk of Fire or Electric Shock

- Disconnect power at the circuit breaker(s) or disconnect switch(es) before installing or servicing (including replacing the battery).
- Installation and/or wiring must be in accordance with national and local electrical code requirements.
- Use COPPER conductors ONLY.
- Do Not recharge, disassemble, heat above 212° F (100° C), crush, or incinerate the Lithium battery. Keep out of reach of children.
- Replace battery with Type CR2 only that is certified by Underwriters Laboratories (UL).
- Do NOT use timer to control devices that could have dangerous consequences due to inaccurate timing, such as: sun lamps, saunas, heaters, slow cookers, etc.

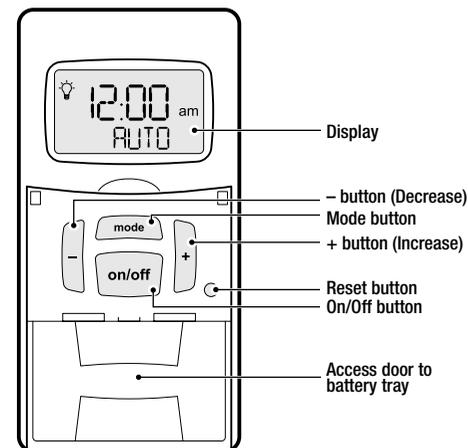
#### NOTICE

- Risk of timer damage due to leakage if weak battery is not replaced promptly.
- Dispose of product per local regulations for disposal of Lithium batteries.

### PRODUCT DESCRIPTION

The ST01 Series and EI600 Series In-Wall Timers give you versatility in a simple to install, 24/7 programmable package. These timers allow you to customize your timer schedule with automatic dusk/dawn, random, and Daylight Saving Time (DST) programming options for up to 40 ON/OFF events. The ST01 Series and EI600 Series are incandescent/fluorescent/CFL/LED compatible. In addition, these timers can handle any load type and require no neutral wire connection, making them ideal for any application, regardless of complexity.

### TIMER INTERFACE



### PRE-INSTALLATION

Before mounting the timer in the wall, install the supplied battery.

1. Gently pry open the access door, located below ON/OFF, and remove the battery tray from the timer.
2. Place the supplied CR2 battery into the battery tray, matching the battery + and - markings to the + and - markings on the tray, then place the battery tray back in the timer.
3. The display initializes, then flashes 12:00 am in manual mode.
4. Press ON/OFF. The timer "clicks" to confirm it is ready for programming.

**Note:** If the display doesn't flash 12:00 am, check/replace the battery before proceeding.

### NOTES

Read these notes before continuing with the timer installation and programming process.

- The timer is battery-powered and does not need AC power for initial setup and programming. For new installations, it is recommended that you setup and program your timer before installing it.
- The battery controls the ON/OFF function ("clicking" sound) and maintains the time and date. The screen flashes BATT when the battery strength is low. When replacing the battery, disconnect AC power. You will have a few minutes to insert new batteries before the date and time settings are lost. All other settings will remain in memory, without battery or AC power.
- Each ON or OFF setting is an event. Each event must be programmed separately.
- The MODE menu includes SETUP, PGM (program), AUTO (automatic), RAND (random), and MAN (manual). AUTO and RAND modes do not appear on the menu options until the time of day is set and at least one ON or OFF event is programmed.
- All menus loop (repeat options when you get to the end of the menu). When in a specific Mode, press ON/OFF to loop within that Mode.
- When using the + or - buttons to change a flashing setting, hold the button to make the numbers scroll faster.
- When advancing to the next setting, the timer automatically saves the data from the previous screen whether you changed a setting or not. All settings save automatically after five minutes.

### PROGRAMMING

Follow these steps for initial setup and programming of the ST01 Series and EI600 Series timers.

#### Clear All Existing Settings

When first setting the timer, it is recommended that any existing settings be cleared.

1. Press and hold ON/OFF button.
2. Using a paper clip or pen, press and release the RESET button. The timer displays INIT after approximately five seconds.
3. Release the ON/OFF button. All previous settings are removed.

### Initial Setup

1. Press MODE until SETUP appears on the display.
2. Press ON/OFF to advance to the next menu item (HOUR).
3. Press + or - to adjust the flashing menu item (HOUR).
4. Press ON/OFF to advance to the next menu item (MINUTES).
5. Repeat steps 3 & 4 to set the MINUTES, YEAR, MONTH, and DATE.



**Note:** After setting the DATE, the current day of the week flashes. Verify the DAY. If wrong, press + or - to review and adjust the YEAR, MONTH, and DAY. Press ON/OFF to confirm.

6. The DST selections (AUTO or MAN) flash on the display.

- Press + to change the selection.
  - Select AUTO if your location observes DST.
  - Select MAN to disable automatic DST adjustment.



- Press ON/OFF to confirm and advance to ZONE selection.

**Note:** The remaining settings for initial setup (ZONE, DAWN, and DUSK settings) are only used for regulating Astronomic events. There is no need to adjust these settings if you are not scheduling an Astronomic event.

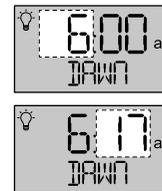
7. The ZONE selections\* (CENT, SOU, or NRTH) flash on the display.

- Press + to change the selection to match your location on the map.
- Press ON/OFF to confirm and advance to DAWN/DUSK selection.



**Note:** Astronomic adjustment on this product is designed for the continental United States. Astronomic schedules are not recommended for locations substantially beyond the continental US borders, including Alaska. For southern Canada, select "NRTH" zone. For northern Mexico, select "SOU" zone. Please visit [www.intermatic.com](http://www.intermatic.com) for other timer models offering expanded Astronomic geographic coverage.

8. The hours digit of the current day's DAWN time flashes on the display.



- Press + or - to adjust the hour, as necessary.
- Press ON/OFF to confirm and advance to the DAWN minutes digit.
- Press + or - to adjust the minutes, as necessary
- Press ON/OFF to confirm and advance to the DUSK hours digit.
- Use the same process for setting the DAWN time to set the time for DUSK.

**Note:** Locate the current day's dusk and dawn times in a local paper or online. You may deliberately adjust DUSK and/or DAWN settings up to +/- 120 minutes, if desired, to cause Astronomic events to always occur a predictable amount of time before or after the actual dusk or dawn.

9. The timer loops to the beginning of the SETUP mode.
  - Press ON/OFF repeatedly to review/revise your settings, or press MODE to exit SETUP.

### Programming Events

**Note:** Program ON and OFF events as separate events.

1. Press MODE until PGM appears on the display.
2. Press ON/OFF to confirm. An event number flashes on the display.



**Note:** If this is the first event, you will see 01.

3. Press ON/OFF to confirm the event number. An event type flashes on the display.



4. Use + to select the event type.

- ON - sets an ON event
- SKIP - stops the event
- OFF - sets an OFF event



5. Press ON/OFF to confirm. An event time type flashes on the display.

6. Use + to select a time type.

- DAWN
- DUSK
- Fixed Time



**Note:** To set a Fixed Time, press ON/OFF, then + or - to adjust the hour. Press ON/OFF. Use the same process to set minutes.

7. Press ON/OFF to confirm. A day selection flashes on the display.

- Use + to select the days the event runs.
  - ALL - all seven days of the week
  - M-F - Monday through Friday
  - WKD - Saturday and Sunday
  - Individual day - select: SUN, MON, TUE, WED, THU, FRI, or SAT
- Press ON/OFF to confirm. The display reads SAVE, then flashes the event number to indicate the event is saved.



**Note:** To continue programming events, use + to advance to the next event number, then repeat steps 3 through 9.

## Selecting Operating Modes

<b>AUTO</b>	Timer operates per your programmed schedule of ON/OFF events.
<b>RAND</b>	Timer operates your schedule at +/- 15 minutes from the programmed time.
<b>MAN</b>	Operates like a manual ON/OFF switch, disregards any programmed events.

**Note:** To set the timer to recognize your programmed events, press MODE to scroll to AUTO or RAND only.

## Reviewing/Changing Clock Time, Calendar, or Astronomic Settings

Repeat the steps under "Initial Setup" to review and make setting changes, as needed.

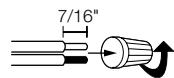
## Changing Events

- Press MODE until PGM appears on the display.
- Press ON/OFF to confirm. An event number flashes. Use + to find the correct event number.
- Press ON/OFF to confirm.
  - To change the ON/OFF status of an event, use + to select the event type.
    - ON - sets a previously OFF event to ON
    - SKIP - suppresses the selected event so it is not initiated by the timer. This is helpful for unusual programming needs, like vacation settings.
    - OFF - sets a previously ON event to OFF
  - To update an existing setting, press ON/OFF until the setting to be updated displays.
    - Press + to adjust the setting.
- Press ON/OFF to cycle through the program until the display reads SAVE.
- Press MODE to exit the programming menu.

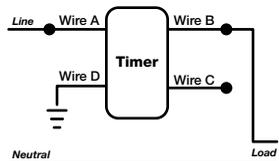


## INSTALLATION

- Disconnect the power at the service panel.
- Remove wall switches, if applicable.
- Strip the existing wire ends to 7/16".
- Wire the timer into the wall box. An example of single-pole and three-way wiring follow. For other three-way wiring scenarios, go to [www.intermatic.com](http://www.intermatic.com).



## Single-Pole Wiring

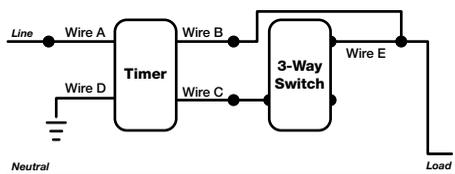


<b>A</b>	Black — Connects to the hot (black) wire from the Power Source
<b>B</b>	Blue — Connects to the other wire (black) from the load
<b>C</b>	Red — This wire is not used in single-switch installations. Cap with a twist connector
<b>D</b>	Green — Connects to the supplied ground

## Three-Way Wiring

**Note:** The distance between the timer and the remote switch must not exceed 100 feet.

The wiring shown is for a timer replacing a three-way switch at the line side. For other installations, visit [www.intermatic.com](http://www.intermatic.com) or consult a qualified electrician.



<b>A</b>	Black — Connect to the wire removed from the "COMMON" terminal of the switch being replaced
<b>B</b>	Blue — Connect to one of the other wires removed from the switch being replaced. Record the wire color connected to the blue wire for use during load-side installation
<b>C</b>	Red — Connect to the remaining wire removed from the switch being replaced. Record the wire color connected to the red wire for use during load-side installation
<b>D</b>	Green — Connect to the supplied ground
<b>E</b>	Jumper Wire — At the other three-way switch, install the supplied jumper wire between wire B and the common terminal

## Finalizing Installation

- Make sure the provided twist-on wire connectors are secure, then tuck the wires into the timer wall box, leaving room for the timer.
- Using the provided screws, secure the timer to the wall box.
- Cover the timer with the wall plate and secure using the provided screws.
- For three-way wiring, install the remote switch in wall box. Cover the switch with the wall plate and secure.
- Reconnect the power at the service panel.

## TESTING THE TIMER

Make sure the timer displays MAN MODE during testing.

## Single-Pole Wiring Test

To test the timer, press ON/OFF several times. The timer should "click" and the controlled light or device (load) should turn ON or OFF.

## Three-Way Wiring Test

- To test the timer, test with the remote switch in each of its two positions.
  - Press ON/OFF several times. The timer should "click" and the controlled light or device (load) should turn ON or OFF.
  - If the timer clicks, but the load does not operate:
    - Disconnect the power at the service panel.
    - Re-check your wiring and make sure the load is functional.
    - Reconnect the power at the service panel.
    - Retest.
  - If the timer clicks, but the load only operates when the remote switch is in one of its two positions, repeat Step 3, a-d, but interchange the two traveler wires (wires between the timer and the remote three-way switch) connected to the red and blue timer wires.
- Note:** Consult a qualified electrician if the switch and timer fail to operate as intended.
- When the timer "clicks" and the controlled device turns ON and OFF as appropriate, congratulations, the timer is successfully installed!

Enjoy your new timer!

## TROUBLESHOOTING

Observed Problem	Possible Cause	What To Do
Timer display is blank and the timer does not "click" when the ON/OFF button is pushed.	Battery is missing, has no charge, or was installed incorrectly.	Attempt to reinsert the battery. If the problem persists, insert a fresh battery.
Timer does not switch ON/OFF but display looks normal.	Timer is not set in AUTO, RAND, or MAN mode.	Press MODE to select the operational mode you want to use.
Timer resets to 12:00.	Timer is installed in conjunction with a contactor or motor load.	Install a line filter.
Timer won't enter Auto or Random mode when you press Mode.	No schedule is selected.	Define a schedule of events.
Timer switches at incorrect times or skips some of the programmed times.	The active schedule has a conflicting setting.	Review the settings and revise them as necessary.
	Timer is in Random mode, which varies switching times up to +/- 15 minutes.	Select the Auto Mode.
Timer shows ON but the light or other controlled device is OFF.	The Astronomic and Defined switching times are in conflict, your DST may or may not be turned on, and/or your Astronomic Zone is not set to Center, North, or South.	Review your program settings and revise them as necessary.
	<b>Note:</b> Your timer automatically skips any conflicting ON event as summer approaches to prevent unwanted operation of lights or other controlled devices.	
	Switching inductive loads, such as electrical contactor or motor load.	Add a noise filter e.g., ET-NF. Connect filter across load's coil.
Load only operates when the remote (three-way) switch is in one position or the timer ignores the remote switch.	The remote switch is wired incorrectly.	Recheck the wiring, especially for the jumper.

## TROUBLESHOOTING (CONT.)

Observed Problem	Possible Cause	What To Do
The timer ignores a three-way remote switch even though it is wired correctly or the load turns off immediately after being turned ON.	<ul style="list-style-type: none"> <li>The remote switch or timer is wired wrong.</li> <li>There is an excessive length of wire (greater than 100 feet).</li> <li>There is buried wire to the remote switch.</li> <li>The remote switch is not functioning properly or worn out.</li> </ul>	Contact a qualified electrician.
The battery tray is difficult to replace.	<ul style="list-style-type: none"> <li>Battery is not seated in the tray.</li> <li>The tray is misaligned.</li> <li>The contact tabs of the tray are bent</li> </ul>	Seat the battery in the tray, then reinstall.
The timer operation is sluggish or not switching ON/OFF at all.	Though the "BATT" message is not being displayed, the battery is getting weak.	Replace the battery. To test the battery, press the ON/OFF button. The timer should "click."
Timer shows ON but the light or other controlled device is OFF.	The light or controlled device itself may be switched OFF.	Make sure the light or controlled device is switched ON and plugged in.

**Note:** When installing a timer with either a contactor or motor load, a line filter is recommended.

## LIMITED WARRANTY

For detailed warranty information, refer to the Intermatic website at [www.intermatic.com](http://www.intermatic.com), contact Intermatic by mail at Intermatic Incorporated Customer Service / 7777 Winn Rd., Spring Grove, Illinois 60081-9698, or by phone at: 815-675-7000.



Libertyville, Illinois 60048  
www.intermatic.com rev 10/1/2022

# ST01/ST01K/EI600

In-Wall Timer with Astro or Countdown Feature

## Installation and User Guide

### RATINGS

	ST01/ST01K	EI600
<b>Operating Voltage</b>	120-277 VAC, 50/60 Hz	
<b>Resistive (heater)</b>	15 A, 120-277 VAC	20 A, 120-277 VAC
<b>Tungsten (incandescent)</b>	15 A, 120 VAC; 6 A, 208-277 VAC	
<b>Ballast (fluorescent)</b>	8 A, 120 VAC; 4 A, 208-277 VAC	16 A, 120-277 VAC
<b>Electronic Ballast (LED)</b>	5 A 120 VAC; 2 A 277 VAC	
<b>Load Rating (Motor)</b>	1 HP, 120 VAC; 2 HP, 240 VAC	
<b>DC Loads</b>	4 A, 12 VDC; 2 A, 28 VDC	
<b>Operating Temperature</b>	32° F to 104° F (0° C to 40° C)	
<b>Dimensions</b>	4 1/8" H x 1 3/4" W x 1 13/16" D	
<b>Neutral Not Required</b>		

### SAFETY SECTION

#### WARNING

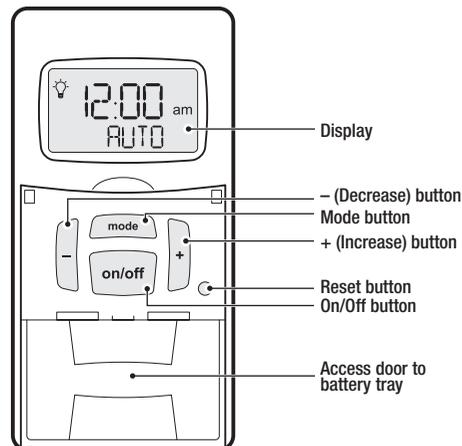
##### Risk of Fire or Electric Shock

- Disconnect power at the circuit breaker(s) or disconnect switch(es) before installing or servicing (including replacing the battery).
- Installation and/or wiring must be in accordance with national and local electrical code requirements.
- Use COPPER conductors ONLY.
- Do Not recharge, disassemble, heat above 212° F (100° C), crush, or incinerate the Lithium battery. Keep out of reach of children.
- Replace battery with Type CR2 only that is certified by Underwriters Laboratories (UL).
- Do NOT use timer to control devices that could have dangerous consequences due to inaccurate timing, such as: sun lamps, saunas, heaters, slow cookers, etc.

#### NOTICE

- Follow local electrical codes during installation.
- Risk of timer damage due to leakage if weak battery is not replaced promptly.
- Dispose of product per local regulations for disposal of Lithium batteries.

### TIMER INTERFACE



### PRODUCT DESCRIPTION

The ST01 and EI600 series timers combine scheduling, and countdown features into one simple-to-install unit. Features include 7-day programming with optional Automatic Daylight-Saving Time (DST) adjustment, 40 available event spaces for building any combination of scheduled events (Dawn, Dusk or Specific times), RAND (random) feature used to deter unwanted visitors, providing an “occupied” look when you’re away, and more. The DOWN (countdown) function is designed for turning devices Off after activation, ranging from one second up to 24 hours, and is incandescent, fluorescent, CFL and LED compatible. The ST01/EI600 can handle most load types, does not require a neutral wire connection, and supports three languages, English (ENG), Spanish (SPAN), and French (FRN), making it ideal for many applications.

### IMPORTANT NOTES

#### Please read these notes before continuing.

- The timer is battery-powered and does not need AC power for initial setup and programming; it also controls the ON/OFF function (“clicking” sound) and maintains the time and date.
- BATT LOW flashes on display when the battery strength is low.
- When replacing the battery, first disconnect the AC power. Once the old battery is removed, you’ll have a few minutes to insert the new battery before the date and time settings are lost. All other settings will remain in memory, without battery or AC power.
- AUTO (automatic) and RAND (random) modes don’t appear in the menu options until at least one ON or OFF event is programmed.
- All menus “loop” (repeat options at end of menu). When in a specific MENU, press ON/OFF to loop within that MENU.
- The + or - buttons change what is flashing on the screen. Hold them down to scroll faster.
- Countdown (DOWN) function allows users to decide between setting a 3-minute shut-off warning WARN (warning) or turning WARN (warning) off.

### PRE-INSTALLATION

#### Before programming, install the supplied battery.

- Gently pry open the access door, located below ON/OFF button, and remove the battery tray from the timer. (Search for YouTube video for “ST01 Programmable Timer Battery Replacement”)
  - Place the supplied CR2 battery into the tray. Make sure to match the + and - markings on the battery to the tray. Install the tray into the timer.
  - The product initializes and enters the MAN (manual) MODE of operation with the time blinking at 12:00 am
- Note:** *If the display does not flash 12:00 am, check/replace the battery before proceeding.*

### PROGRAMMING

Follow these steps for initial setup and programming of the ST01 and EI600 series timers.

#### Factory Reset Timer

1. Press and hold ON/OFF (continue holding until step 3)
  2. Using a paper clip or pen, press and release the RESET button.
  3. When you see INIT on the display then release the ON/OFF button
- PRO-TIP:** *Choice of languages are ENG (English), FRN (French), and SPAN (Spanish)*
4. Use the + or – to select desired language
  5. Press ON/OFF to confirm
  6. Use + or – to select the timer’s function you want to use
    - a. STD (Standard) timer operation (on and off times)
    - b. DOWN (Countdown) timer
  7. Press ON/OFF to confirm

#### Next Step:

- For Standard Operation (STD): 12:00 am will flash showing MAN after Factory Reset; to program, go to “Initial Setup.”
- For Countdown Operation (DOWN), the screen will display OFF; to program, go to “COUNTDOWN OPERATION ONLY.”

#### STANDARD OPERATION ONLY

##### Initial Setup

1. Press the MODE button until you see SETUP on the display
2. Press the ON/OFF button to confirm
3. Use the + or – to set the current time of day HOUR (make sure your AM or PM is correct)
4. Press the ON/OFF button to confirm
5. Use the + or – to set the current time of day MINUTE
6. Press the ON/OFF button to confirm
7. Press the + or – to set the current YEAR
8. Press the ON/OFF button to confirm
9. Press + or – to set the current MONTH
10. Press the ON/OFF button to confirm
11. Press + or – to set the current DATE
12. Press the ON/OFF button to confirm
13. Make sure it is showing the correct DAY of WEEK (today)
14. Press the ON/OFF button to confirm



15. Press + or – to select if the timer will adjust for DAYLIGHT SAVING TIME (DST) in spring and fall
  - a. AUTO means it will adjust automatically
  - b. OFF means it will not change
16. Press the ON/OFF button to confirm
17. Press the + or – to select your TIME ZONE
  - a. Alaska (AKT), Atlantic (AT), Central (CT) (default), Eastern (ET), Hawaii (HT), Mountain (MT), Newfoundland (NT), Pacific (PT)
18. Press the ON/OFF button to confirm
19. Press + or – to select your COUNTRY (CTRY)
  - a. USA (default), Mexico (MEX), Canada (CAN)
20. Press the ON/OFF button to confirm



**PRO-TIP:** *Refer to QR code under warranty information for latitude and longitude chart.*

21. Press + or – button to select your LATITUDE (LAT)
22. Press the ON/OFF button to confirm
23. Press + or – button to select your LONGITUDE (LONG)
24. Press the ON/OFF button to confirm

NOTE: No decimal point will be displayed. For example, LAT 48.0 should be entered as 480



**PRO-TIP:** *You have the option to “Offset” the Dusk and Dawn settings from 0 to 99 minutes.*



25. Press + or – button to adjust the current DAWN time (you can include an offset here).
26. Press the ON/OFF button to confirm
27. Press + or – button to adjust the current DUSK time (you can include an offset here).
28. Press the ON/OFF button to confirm (You will now see your current time and SETUP) - Proceed to Programming Setup

#### Programming Setup

**PRO-TIP:** *Before Standard Programming Setup, you’ll need to determine which type of schedule fits your application from the list below*  
*T1= Template 1 - On at DAWN. Off at Dawn*  
*T2= Template 2 - On at DUSK. Off at 10:00 PM*  
*T3= Template 3 - On at DUSK. Off at 10:00 PM. On at 5:00 AM. Off at Dawn.*

##### Specific Time - ON/OFF

1. Press the MODE button until you see PGM on the screen.
2. Press the ON/OFF button to enter the programming menu.

Advance to “Programming Template Events” or “Programming Specific Events”.

#### Programming Template Events

**PRO-TIP:** *Templates are set for all days initially.*

1. When you first enter the PGM menu press the + or – to select a template.
2. Press the ON/OFF button on the template you wish to use
3. Last step is to press MODE to select AUTO to RAND (random).



#### Programming Specific Events

**PRO-TIP:** *You will need a minimum of 2 events (one for ON and one for OFF)*

1. When you first enter the PGM menu, press the + or – to advance to event # 01.
2. Press the ON/OFF button to confirm
3. Press the + or – to select if this will be an ON or OFF event
4. Press the ON/OFF button to confirm
5. Press the + or – to select if this will be a DAWN, DUSK or Specific Time event (specific time will have a time flashing)
6. Press the ON/OFF button to confirm
7. For Specific Time: Press + or – to set the hour you want (make sure the AM or PM is correct)
8. Press the ON/OFF button to confirm the hours
9. Press the + or – to set the minutes
10. Press the ON/OFF button to confirm Press + or – button to select what day or group of days you want this event to happen.

#### PRO-TIP:

*ALL- all seven days of the week*  
*Individual Day- select: SUN, MON, TUE, WED, THU, FRI or SAT*  
*M-F- Monday through Friday*  
*WKD- Saturday and Sunday*

11. Press the ON/OFF button to confirm
12. If you need to set another event, Press the + button to advance to the next event and repeat steps starting from step 2.
13. When you’re finished adding events, Press the MODE button to advance to AUTO (automatic) or RAND (random) MODE.

#### EDIT, SKIP, DELETE STANDARD EVENTS

1. Press MODE until PGM appears on the display.
  2. Press ON/OFF to confirm.
  3. Press + or – to select EDIT or ERASE
    - a. EDIT will let you make changes to the schedule advance to step #4
    - b. ERASE will erase ALL programmed events.
- If you select ERASE, press ON/OFF to confirm, and advance to PROGRAMMING STANDARD EVENTS to program event(s), or press MODE to go to MAN (Manual).



4. Press ON/OFF to confirm
5. Press the + button to find the event number you want to Edit, Skip or Erase (ERAS).
6. Press ON/OFF to confirm.
7. Press the + button to select one of the options below.
  - a. ON – The timer will turn on at this time.
  - b. OFF – The timer will turn OFF at this time.
    - If you selected ON or OFF, please go back to Step #5 under “PROGRAMMING SPECIFIC EVENTS”
  - c. SKIP – This will hide or bypass this event that you might want to use at a later date. The timer will ignore any “skipped” events. This is helpful for unusual programming needs, like vacation settings.
  - d. ERAS (erase) – This will erase the selected event.
    - If you selected SKIP or ERASE you can continue to

Step #5 under “PROGRAMMING SPECIFIC EVENTS” or Press MODE to return to AUTO, RAND (random) or MAN (manual).

### COUNTDOWN OPERATION ONLY

#### Countdown Setup

**PRO-TIP:** The time will move faster the longer you hold down the button.



- Use the + or – button to set the amount of countdown time you would like.
- Press the ON/OFF button to confirm
- Press and hold the MODE and ON/OFF buttons and hold for 5 seconds. The display will show the WARN (warning) menu.

4. Press the + or – to select FLASH or OFF.

- Off — the warning function is turned OFF.



- Flash — when the timer reaches 3-minutes before shut-off, it will flash the controlled lights (or other circuit) for 1 second. A “sunburst” icon will appear on the display

5. Press the MODE button to confirm

6. Press the + or – to select the desired LOCK option.

- None — no locking function is set.
- Pause — users cannot use the Pause function to suspend the timer countdown.
- Time — users can review but not change the time setting. Users can adjust a running countdown but may not exceed the locked shut-off setting.
- All — both the pause and setting or changing of the timer’s shut-off setting is locked.

7. Press the MODE button to confirm, the display will show OFF

#### Change the Countdown Time

**PRO-TIP:** If timer is in LOCK MODE, you may not be able to make any changes to the set time. To start or stop countdown, press ON/OFF button. To pause the countdown, press the Mode button.

- Press the ON/OFF button until the screen shows OFF
- Press and hold the + or – button to set the amount of countdown time you want.

#### Countdown Operating Tips

• **Checking Timer Setting** — Press the + or – button to check the timer setting. The display shows the timer setting for 2 seconds.

• **Setting Timer When Locked** — To unlock the timer, please see the Countdown Setup section.

• **Setting Timer When NOT Locked** — When timer is NOT LOCKED, the user can adjust timer settings, but must turn the timer OFF before adjusting

• **Pausing a Countdown** — When the timer is NOT locked, press the MODE button to pause a countdown in progress. Pause bars flash while the count holds steady. Press MODE again to continue the countdown or press the ON/OFF button to power the load OFF.

• **Shortening or lengthening a Countdown in progress** — To change remaining countdown in progress, press and hold the + or – button or the ON/OFF button until the display shows the time setting you want for this cycle only. When the timer begins its next cycle, the countdown will return to the programmed setting.

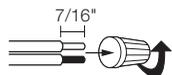
- When locked you can only increase the amount of time to the maximum time set.

• **Using the Remote Switch in a 3-Way** — When controlling the timer with the remote switch, toggle the remote switch once to toggle on or off.

## INSTALLATION

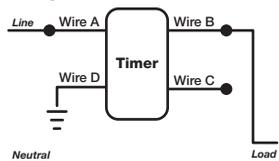
**PRO-TIP:** When installing a timer with either a contractor or motor load, a noise filter is recommended (ET-NF). An example of single-pole and three-way wiring follow. For other three-way wiring scenarios, go to www.intermatic.com.

Disconnect the power at the service panel.



- Remove wall switches, if applicable.
- Strip the existing wire ends to 7/16”.
- Wire the timer into the wall box.

#### Single-Pole Wiring

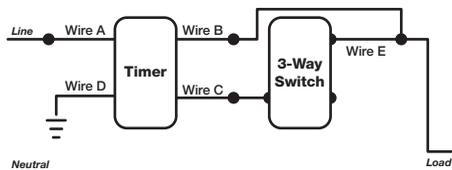


<b>A</b>	Black — Connects to the hot (black) wire from the Power Source
<b>B</b>	Blue — Connects to the other wire (black) from the load
<b>C</b>	Red — This wire is not used in single-switch installations. Cap with a twist connector
<b>D</b>	Green — Connects to the supplied ground

#### Three-Way Wiring

**PRO-TIP:** The distance between the timer and the remote switch must not exceed 100 feet.

The wiring shown below is for a timer replacing a three-way switch at the line side.



<b>A</b>	Black — Connect to the wire removed from the “COMMON” terminal of the switch being replaced
<b>B</b>	Blue — Connect to one of the other wires removed from the switch being replaced. Record the wire color connected to the blue wire for use during load-side installation
<b>C</b>	Red — Connect to the remaining wire removed from the switch being replaced. Record the wire color connected to the red wire for use during load-side installation
<b>D</b>	Green — Connect to the supplied ground
<b>E</b>	Jumper Wire — At the other three-way switch, install the supplied jumper wire between wire B and the common terminal

## FINALIZING INSTALLATION

- Make sure the provided twist-on wire nuts are secure, then tuck the wires into the timer wall box, leaving room for the timer.
- Using the provided screws, secure the timer to the wall box.
- Cover the timer with the wall plate and secure using the provided screws.
- For three-way wiring, install the remote switch in wall box.
- Install the wall plate and secure.
- Reconnect the power at the service panel.

#### Testing the Timer

Make sure the timer displays MAN (manual) MODE during testing

#### Single-Pole Wiring Test

To test the timer, press ON/OFF several times. The timer should “click” and the Controlled light or device (load) should turn ON or OFF.

#### Three-Way Wiring Test

- To test the timer, test with the remote switch in each of its two positions.
  - Press ON/OFF several times. The timer should “click” and the controlled light or device (load) should turn ON or OFF.
  - If the timer clicks, but the load does not operate:
    - Disconnect the power at the service panel.
    - Re-check wiring and make sure the load is functional.
    - Reconnect the power at the service panel.
    - Retest.
  - If timer clicks, but the load only operates when the remote switch is in one of its two positions, repeat Step 3, a-d, but interchange the two traveler wires (wires Between the timer and the remote three-way switch) connected to red and blue timer wires
- PRO-TIP:** Consult a qualified electrician if the switch and timer fail to operate as intended
- When the timer “clicks” and the controlled device turns ON and OFF as programmed, the timer is successfully installed!

## TROUBLESHOOTING

**Note:** : For more troubleshooting tips, contact Intermatic Technical Support at: 815-675-7000.

Observed Problem	Possible Cause	What to Do
Timer display is blank, and the timer does not “click” when you try to turn it on or off.	<ul style="list-style-type: none"> <li>Battery is missing</li> <li>Battery has no charge</li> <li>Battery was installed incorrectly</li> </ul>	<ul style="list-style-type: none"> <li>Install a battery</li> <li>Replace the battery</li> <li>Make sure the battery is installed correctly.</li> </ul>

## TROUBLESHOOTING CONT.

Timer does not switch ON/OFF but display looks normal	<ul style="list-style-type: none"> <li>Timer is not set in AUTO, RAND, or MAN MODE</li> <li>Battery is low and needs replaced</li> </ul>	<ul style="list-style-type: none"> <li>Press MODE to select the operational MODE you want to use</li> <li>Replace battery</li> </ul>
Timer resets to 12:00	<ul style="list-style-type: none"> <li>Timer is installed in conjunction with a contactor or motor load.</li> </ul>	<ul style="list-style-type: none"> <li>Install a noise filter (ET-NF) at source of noise</li> </ul>
Timer won’t enter AUTO or RAND mode when “MODE” is pressed	<ul style="list-style-type: none"> <li>No schedule is selected</li> </ul>	<ul style="list-style-type: none"> <li>Proceed to “Programming Standard Events” section</li> </ul>
Timer operates at incorrect times, or skips programmed EVENT times	<ul style="list-style-type: none"> <li>The active schedule has conflicting or incorrect events</li> <li>Battery may be weak.</li> <li>Timer is in RAND mode, which varies switching times up to +/- 15 minutes</li> </ul>	<ul style="list-style-type: none"> <li>Review programmed events, revise as necessary.</li> <li>Replace battery.</li> <li>Select “Auto Mode”</li> </ul>
Load only operates when: remote (three-way) switch is in one position, or timer ignores the remote switch.	<ul style="list-style-type: none"> <li>The remote switch is wired incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>Recheck the wiring, especially for the jumper</li> </ul>
The timer ignores three-way remote switch even though it is wired correctly, or the load turns off immediately after being turned ON	<ul style="list-style-type: none"> <li>The remote switch or timer is wired incorrectly.</li> <li>There is an excessive length of wire (greater than 100 feet).</li> <li>The remote switch is not functioning properly or worn out.</li> </ul>	<ul style="list-style-type: none"> <li>Contact a qualified electrician</li> </ul>
The battery tray is difficult to replace.	<ul style="list-style-type: none"> <li>Battery is not seated in the tray</li> <li>The tray is misaligned</li> <li>The contact tabs in tray are bent</li> </ul>	<ul style="list-style-type: none"> <li>Seat the battery in the tray, then reinstall.</li> </ul>

## TROUBLESHOOTING CONT.

The timer operation is sluggish, or not switching ON/OFF at all.	<ul style="list-style-type: none"> <li>Even though the BATT” message is not displayed, the battery is getting weak.</li> </ul>	<ul style="list-style-type: none"> <li>Test battery by pressing the ON/OFF button, there should be a “click” sound on the timer</li> <li>Replace the battery</li> </ul>
Timer shows ON but the light or other controlled device is OFF.	<ul style="list-style-type: none"> <li>The light or controlled device itself may be switched OFF.</li> <li>The breaker may be tripped</li> <li>Loose wiring connection</li> </ul>	<ul style="list-style-type: none"> <li>Make sure the light or controlled device is switched ON and plugged in.</li> <li>Check for a tripped breaker</li> <li>Check wiring</li> </ul>
The timer waits 1 second to power OFF after pressing the ON/OFF button or operating the remote switch	<ul style="list-style-type: none"> <li>This is intentional to allow you to operate the switch a second time to restart without powering the load OFF.</li> </ul>	
The timer is acting erratically.	<ul style="list-style-type: none"> <li>Operating software has become confused and needs to be reset.</li> </ul>	<ul style="list-style-type: none"> <li>Perform a Reset: Follow instructions to “Factory Reset Timer”</li> </ul>
The timer setting cannot be changed, or the PAUSE button does not function.	<ul style="list-style-type: none"> <li>The timer setting or pause functions are locked.</li> </ul>	<ul style="list-style-type: none"> <li>Reset DOWN (countdown) MODE by proceeding to Step 1, under “Countdown Setup”</li> </ul>

## LIMITED WARRANTY

Warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased or (b) completing a warranty claim online at <https://www.intermatic.com/Support/Warranty-Claims>. This warranty is made by: Intermatic Incorporated, 1950 Innovation Way, Suite 300, Libertyville, IL 60048. For additional product or warranty information go to: <http://www.Intermatic.com> or call 815-675-7000, M-F 8AM to 4:30pm



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