

◆ **GENERAL INFORMATION**

**Ratings:** 15A - 120VAC General Purpose  
 15A - 120VAC Resistive  
 960W - 120VAC Tungsten  
 1/2HP - 120VAC Motor  
 500VA - 120VAC Electronic Ballast

**Switching:** SPST

**Operating temperature:** -10°C to 55°C (14°F to 131°F)

**NOTES:** - Keep these instructions available for future reference.  
 - Indoor use only.  
 - This product is intended for use in the continental US, Alaska, and Hawaii.

**DESCRIPTION:**

This 24-hour, programmable time switch is designed to automatically energize a light, fan, or small appliance load on a daily basis (or other combination of days). It is equipped with a special "Astronomic" feature that can adjust the start or stop time of the load as sunrise and sunset change throughout the year. In addition to 20 available ON/OFF program slots, the **42E724A** also has an array of other features to further customize the programmed time of the load and provide enhanced convenience during use. Can replace standard toggle or decorator style switches in single or 3-way applications.

**FEATURES:**

- Astronomic programming available to adjust with sunrise and sunset.
- 20 available ON/OFF program slots.
- 3-Way capable.
- Automatically adjusts for DST (Daylight Savings Time) with two other manual modes available if desired.
- Random timing mode available for added security while away for extended periods. Gives a house more of a realistic, lived-in look.
- Manual pushbutton for temporary or continuous override of automatic programming.
- Time delay available for auto-shut-off after manual override is activated.
- Countdown timer mode available.

◆ **INSTALLATION**

**CAUTION:** INSTALLATION BY A LICENSED ELECTRICIAN IS RECOMMENDED. INSTALLATION AND USE OF THIS EQUIPMENT SHOULD BE IN ACCORDANCE WITH PROVISIONS OF THE U.S. NATIONAL ELECTRICAL CODE, APPLICABLE LOCAL CODES, AND PERTINENT INDUSTRY STANDARDS.

**CAUTION:** USE THIS DEVICE WITH COPPER WIRE ONLY.

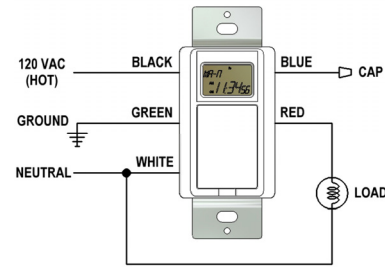
**CAUTION:** THESE TIMERS ARE NOT TO BE USED IN PRECISION TIMING APPLICATIONS WHEN INACCURATE TIMING COULD HAVE DANGEROUS CONSEQUENCES SUCH AS WITH SUN LAMPS OR TANNING EQUIPMENT.

**WARNING: TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!**

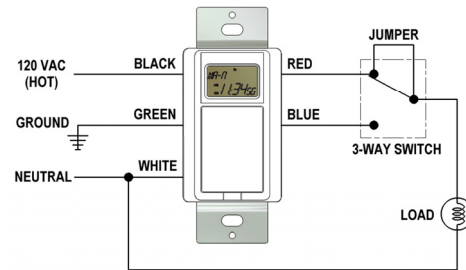
- 1) Remove existing wall plate and switch if applicable.
- 2) Referring to the **WIRING DIAGRAMS**, connect the wires from the switch to the wires in the wall box using the supplied wire nuts. **Be sure all wire nuts are secure.**
- 3) Gently position wires in wall box to allow room for switch.
- 4) Carefully place wires and switch into wall box, and secure with two mounting screws.
- 5) Install the wall plate.
- 6) Restore power to the circuit breaker or fuse panel.

**NOTE:** FOR 3-WAY INSTALLATIONS, BE SURE TO INSTALL JUMPER ON 3-WAY SWITCH BETWEEN RED LEAD WIRE OF THE TIMER AND THE LOAD LEAD WIRE.

◆ **WIRING DIAGRAMS**



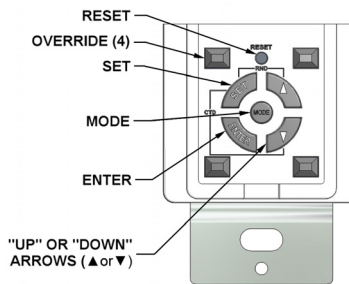
Single Pole (Typical) Wiring



2-Switch, 3-Way Wiring

(NOTE: JUMPER REQUIRED ON 3-WAY SWITCH.)

◆ **KEYPAD LAYOUT / BUTTON FUNCTION**



**NOTE:** TO ACCESS THE KEYPAD, LIFT BOTTOM OF DOOR IN FRONT OF TIMER WITH SMALL SLOTTED SCREWDRIVER.

**1. MODE**

- A) Mode selection (Normal Display, PROG, CALD, ZONE, SUN±, DST).
- B) Current and Countdown rest time display switched in countdown mode.

**2. ENTER** - In and out of setting modes (PROG, CALD, ZONE, SUN±, DST.)

**3. SET** - Locks in chosen parameters and provides access to sub-settings.

**4. (▲) - "Up arrow"**

- A) Switches Normal Display between current date and time.
- B) Increments up for available selections in setting mode.
- C) Increments up for reviewing Program Slots in Program Mode.

**5. (▼) - "Down arrow"**

- A) Provides review of DST (Daylight Savings Time) dates in Normal Display.
- B) Increments down for available selections in setting mode.
- C) Increments down for reviewing Program Slots in Program Mode.

**6. OVERRIDE** - Four buttons in corners of the keypad.

- A) Press one time for Manual ON/OFF switching of load. Press and hold for 3-seconds to switch between automatic operation and fully manual operation.
- B) Hide/Unhide setting data in program mode.
- C) Pause/Continue in countdown period.

**7. RESET** - Clears all programming and reloads default settings.

**Dual-Key Functions**

1. **SET + ▲** - Random function start/stop.
2. **SET + ▼** - Countdown function start/stop.
3. **▲ + ▼** - Manual DST function start/cancel. (NOTE: this feature only works when DST is set in "MANU" (Manual) mode.)

**ONE YEAR LIMITED WARRANTY**

If this product fails because of a manufacturing defect within one year after purchase, we will replace it at no charge. Our warranty does not cover damage caused by accident, abuse, or misuse. We assume no further liability with respect to the sale or use of this product. This warranty is in lieu of all other warranties, expressed or implied, including the warranty of merchantability. We make no warranty with respect to the fitness of any goods for the user's particular application. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

◆ **PROGRAMMING / OPERATION**

■ **POWER-UP SEQUENCE**

- 1) Lift door on front of timer with a small, slotted screwdriver.
- 2) Press **RESET** using an insulated tool such as a toothpick.
- 3) Press **ENTER** to start the timer.

■ **SETTING THE CURRENT DATE & TIME**

- 1) Press **MODE** two times so "CALD" flashes in the Normal Display.
- 2) Press **ENTER** to access the Calendar mode.
- 3) Press the UP or Down Arrows (**▲** or **▼**) to select the desired year. Then press **SET** to move to the next value.
- 4) Repeat (**▲** or **▼**), and **SET** for Month, Day, Hour, Minute, and Seconds settings.
- 5) Press **ENTER** to lock in settings and return to the Normal Display.

■ **SETTING THE LOCATION ZONE**

- 1) Press **MODE** three times so "ZONE" flashes in the Normal Display.
- 2) Press **ENTER** to access the Zone setting mode.
- 3) Press the UP or Down Arrows (**▲** or **▼**) to select the zone where the timer is located (see image below):  
NUSA (Default) = North USA, CUSA = Center USA, SUSA = South USA, ALAS = Alaska, HAWI = Hawaii.
- 4) Press **ENTER** to lock in the zone selection and return to the Normal Display.
- 5) The Normal Display will indicate the selected zone as a "-N", "-C", "-S", "-A", or "-H" following "AU" (Auto Mode) or "MA" (Manual Mode).

CONTINENTAL U.S. ZONES



■ **PROGRAMMING ON/OFF EVENTS**

**NOTE:** The 42E724A will allow the setting times to be entered as a specific time (TIME), as Sunrise (SNUP), or as Sunset (SNST). The Sunrise and Sunset settings will automatically adjust throughout the year as daylight changes.

- 1) Press **MODE** once so "PROG" flashes in the Normal Display.
- 2) Press **ENTER** to access the Programming mode. "1 ON" flashes in the Normal Display. This would be the first event ON time.
- 3) Press (**▲** or **▼**) if necessary followed by **SET** to enter the desired ON time parameters for the first event; Program slot number, Day, Timing type (TIME, SNUP, SNST), Hours, Minutes.
- 4) Repeat Step 3 to set the OFF time for first event.
- 5) Repeat Steps 2 & 3 for up to 20 ON and OFF programmed events.
- 6) At any time, press **ENTER** to finish programming and return back to the Normal Display.

**NOTE:** By default, all days of the week are selected for the event. Pressing (**▲** or **▼**) will cycle through the available daily combinations; Individual Day (Mon, Tue, etc), Mon~Fri, Sat~Sun, Mon~Sat, Mon/Wed/Fri, Tue/Thu/Sat, Mon~Wed, Thu~Sat, Mon~Sun.

■ **SUNRISE AND SUNSET TIME ADJUSTMENT**

**NOTE:** The actual sunrise and sunset schedule across the U.S. may differ slightly from the timer program. This function will allow the consumer to adjust this schedule. Any adjustment to the current sunrise/sunset time will be remembered by the timer from that point on. Actual sunrise and sunset times for your location can be obtained on the internet or based on your observation.

- 1) Press **MODE** four times so "SUN±" flashes in the Normal Display.
- 2) Press **ENTER** to access the Sunrise/Sunset adjustment mode. "SNUP" and today's sunrise time will show in the display.
- 3) Press (**▲** or **▼**) to increase or decrease the set time for sunrise. Maximum time adjustment is +/- 2 hours.
- 4) Press **SET** to lock in the sunrise time adjustment and move to the sunset adjustment. "SNST" and today's sunset time will show in the display.
- 5) Press (**▲** or **▼**) to increase or decrease the set time for sunset. Maximum time adjustment is +/- 2 hours.
- 6) Press **ENTER** to complete the sunrise/sunset time adjustment and return to the Normal Display.

■ **DST (DAYLIGHT SAVINGS TIME)**

**NOTE:** The 42E724A has 3 available settings for DST, automatic, manual-date-entry, and fully manual operation. The "INIT" or automatic setting follows the U.S. standard for DST. Within the manual-date-entry, or "NEW" setting, the consumer can specify the dates for DST. With "MANU" or fully manual operation, the consumer can override the automatic DST settings.

- 1) Press **MODE** five times so "DST" flashes in the Normal Display.
- 2) Press **ENTER** to access the DST setting mode. "INIT" will flash in the display.
- 3) Press (**▲** or **▼**) to select DST type "INIT", "NEW", or "MANU" and **SET** to lock in selection.
- 4) If using "NEW", press (**▲** or **▼**) and **SET** to set new date & time for DST to start "DON", and DST to end "DOFF". Press **ENTER** to lock.
- 5) If using "MANU", press (**▲** and **▼**) at the same time while in the Normal Display to manually start and stop DST.
- 6) Press **ENTER** anytime if needed to exit the DST setting mode and return to the Normal Display.

■ **MANUAL ON/OFF OVERRIDE**

- 1) Press the front panel pushbutton (or 3-way switch) at any point during operation to override the automatic programming and turn the load ON or OFF as needed. This is a temporary override and programming will resume at the next timing event.
- 2) Press and hold the front panel pushbutton (or 3-way switch) for 3 seconds to permanently override the automatic programming. Press and hold the pushbutton (or 3-way switch) again for 3 seconds to revert back to automatic programming.

**NOTE:** The 42E724A offers a time delay for automatically switching OFF a load that has been manually turned ON & OFF with the front pushbutton. Delay sequence starts when the timer is manually turned off.

- 3) Press **MODE** once so "PROG" is flashing in the display.
- 4) Press **ENTER** to access the Programming mode. "1 ON" flashes in the display.
- 5) Press (**▼**) to access the OFF Delay setting. "dL OFF" flashes in the display. Press **SET** to move to time selection.
- 6) Press (**▲** or **▼**) to select OFF time delay value (15 sec, 30 sec, 1 min, 5 min, 10 min, 30 min, 1 hour, and NONE).
- 7) Press **ENTER** to complete the setting and return to the Normal Display.

■ **COUNTDOWN TIMER PROGRAM SETTING**

- 1) Press **MODE** once so "PROG" is flashing in the display.
- 2) Press **ENTER** to access the Programming mode. "1 ON" flashes in the display.
- 3) Press (**▼**) twice to access the OFF Delay setting. "Cd ON" flashes in the display.
- 4) Repeat using (**▲** or **▼**) followed by **SET** for the ON or OFF countdown time setting.
- 5) To operate as a Countdown Timer, press (**▼**) and **SET** at the same time to start countdown timed operation of the load.

■ **RANDOM ON/OFF PROGRAM TIMES**

**NOTE:** Randomly vary the programmed ON and OFF times by up to 30 minutes.

- 1) Press (**▲**) and **SET** at the same time to start Random function. "RND" shows in the display.
- 2) Press (**▲**) and **SET** again at the same time to stop Random function. "RND" disappears in the display.

■ **HIDING PROGRAMMED TIME ENTRIES**

**NOTE:** Hide the time value for each programmed ON/OFF event.

- 1) Press **MODE** and **ENTER** as you would to program the timer.
- 2) Press (**▲** or **▼**) to cycle through the programmed events.
- 3) Press any of the 4 override buttons to hide or unhide the time value.
- 4) Press **ENTER** to return to the Normal Display.

■ **REVIEWING THE SETTINGS**

- 1) **Programmed events:** press **MODE**, **ENTER** and (**▲** or **▼**) to cycle through the program slots.
- 2) **Current date:** press (**▲**) to view, press again for the Normal Display.
- 3) **DST:** press (**▼**) to view date & time when DST starts. Press again to view when it stops. Press a third time to return to the Normal Display.
- 4) **Sunrise & Sunset times:** press **SET** and **ENTER** to view current time for sunrise. Press **MODE** to cycle between viewing sunrise and sunset times. Press **SET** and **ENTER** again to return back to the Normal Display.