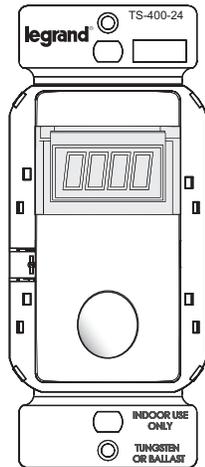


## Catalog Number • Numéro de Catalogue • Número de Catálogo: TS-400-24

Country of Origin: Made in China • Pays d'origine: Fabriqué en Chine • País de origen: Hecho en China



## SPECIFICATIONS

Voltages.....	24VAC, 24VDC, VAC Half Rectified
Current Consumption .....	Max. 15mA DC
.....	Max. 33mA AC
<b>Outputs</b>	
Isolated Relay .....	1A/30V SPDT
Pulse On/Off:	
Width .....	150ms
Current .....	1.5A
Time-Out Adjustment.....	5 minutes to 12 hours
Time-Out Override.....	0 to 1 hour in 5 minute increments
.....	1 hour to 12 hours in 15 minute increments
Operating Temperature .....	32° to 104°F (0° to 40°C)
Humidity .....	Rh 5% to 95%, non-condensing
	U.S. Patent: 5,640,113

## DESCRIPTION AND OPERATION

The IntelliSwitch® TS-400-24 is a digital time switch that automatically turns lights **OFF** after a preset amount of time. The lights can also be turned **OFF** anytime during the timer's countdown by pushing the **ON/OFF** button. The Digital Time Switch has four user-adjustable features: time-out period, time scroll direction, time-out visual, and audible warnings.

### Time-Out Period

The timer can be adjusted to hold lights **ON** for five minutes to 12 hours. The default setting is 3 hours. See the DELAY switch adjustment to set the length of the time-out period.

### Time Scrolling

The user can manually and temporarily override the time-out period without changing the DELAY adjustment. The SCROLL adjustment determines whether the user's override options decrease from a longer time to a shorter time (scroll down) or increase from a shorter time to a longer time (scroll up). To choose the scrolling direction, consider the time-out DELAY setting, and then whether the usual temporary need will be for more or less time.

**Override Operation:** Holding the **ON/OFF** button for longer than 4 seconds causes the timer to scroll through time increments, starting from the time-out DELAY setting. Releasing the **ON/OFF** button resumes the countdown from that point. The minimum override setting is 5 minutes, maximum 12 hours.

The timer resets automatically to the time-out DELAY setting when the countdown runs out, or when the **ON/OFF** button is pushed.

### Visual (Flash) Option

If this option is on there are two occasions when the controlled lights flash. They flash one time when the countdown reaches 5 minutes and twice when the countdown reaches 1 minute.

### Audible (Sound) Option

If this option is **ON**, the timer beeps every 5 seconds during the last minute of the time-out period.

### Timer Countdown

Since the time-out period can be set for 5 minutes to 12 hours, the time is displayed in two different ways. For a countdown of less than an hour, the display shows minutes:seconds. The seconds count down. For a countdown of more than an hour, the display shows hours:minutes, the colon flashes every second.

Minute Countdown	Seconds Elapsed	Hour Countdown
04:59	:01	01:14
04:58	:02	01:14
04:57	:03	01:14

## INSTALLATION

1. Connect the existing wires to the switch terminals.

**For Power Pack wiring:**

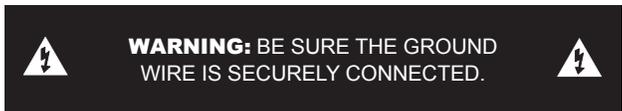
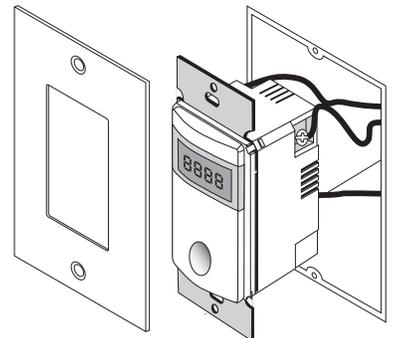
- +24VDC supply to +24V IN
- +Supply COMmon to COMM

**Isolated Relay** uses N.O. , N.C, and RLY COMM terminals.

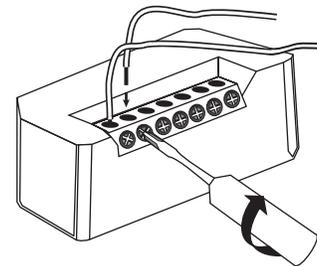
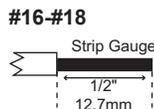
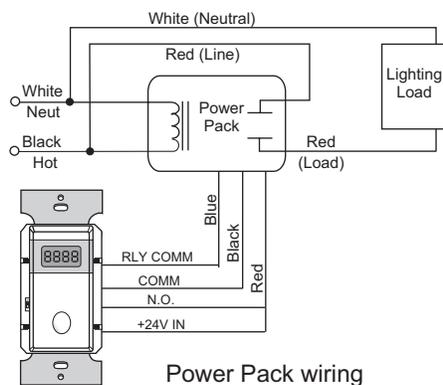
**For Control Panel wiring:**

- +24VAC or +24VDC supply (BLU) to +24V IN
- +Supply Common (WHT) to COMM.
- On (RED) to PULSE ON
- Off (BLK) to PULSE OFF

2. Mount the switch in the wall box with the 2 mounting screws provided.
3. Turn on power to the time switch.
4. 5-10 seconds after power is supplied to the time switch, it will be ready to function. The time switch beeps and the word **OFF** appears in the display. Push the **ON/OFF** switch to activate the lights. The timer begins its countdown. Push the **ON/OFF** switch during countdown to turn the lights **OFF**.
5. Select feature settings using the Switch Adjustment procedures.
6. Install cover plate.



## WIRING



Insert wires as shown and tighten screw in the clockwise direction.

## SWITCH ADJUSTMENT

Enter Settings Mode by pressing the Calibration Button (located on the left, behind the faceplate).

- If no input occurs within four seconds the display flashes then moves to the next setting.
- Press the Calibration Button to view the settings without making changes.
- Press the **ON/OFF** button within four seconds to change the setting.

**DELAY: 5 min. to 12 hr.**

DELAY sets the time-out period. The selections begin at the currently set time (3 hours, default). When the time is less than an hour, the time increases by 5 minutes each time you press the **ON/OFF** button. When the time is more than an hour, it increases by 15 minutes. When the selection passes 12 hours, it restarts the selection scrolling at 5 minutes.

**SCROLL: UP or DOWN (dn)**

To have the user's time override options decrease from a longer time to a shorter time, set Scroll for dn (down). To increase from a shorter time to a longer time, set Scroll for UP.

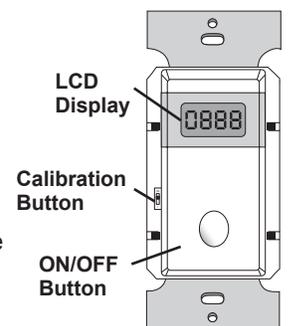
**FLASH: ON or OFF**

**SOUND: ON or OFF**

When the setting selection is complete the unit will either:

- Beep once and display END if the calibration button is being held; release the button to continue.
- Beep three times while it displays END. This gives you a chance to press the **ON/OFF** button to restart the setting procedure.

If you don't press either button within three seconds, the unit exits the Settings Mode and resumes its previous state.



TS-400

---

## TROUBLESHOOTING

---

### Lights will not turn on:

1. Verify that the ground wire is tightly secured.
2. If lights still do not turn **ON**, call 800.879.8585 for technical support.

### Lights will not turn off:

1. Do the lights turn **OFF** when you press the **ON/OFF** button?
  - If yes, check that the time-out period is set to the correct time-out. If the time-out period is adjusted to maximum, the lights will remain **ON** for 12 hours.
  - If no, call 800.879.8585 for technical support.
2. To test if the unit is operating properly, set the time-out period to minimum. Lights should turn **OFF** after five minutes.
3. If lights still do not turn **OFF**, call 800.879.8585 for technical support.

### Re-adjusting the Time-out Period:

To re-adjust the time-out period, set the new time delay in the user settings. If this is done while the timer is counting down a prior setting, the new setting will not be recognized until the present countdown has expired, or until the timer is turned **OFF** and **ON** again.

---

## ORDERING INFORMATION

---

Catalog Number	Description
TS-400-24	Digital Time Switch 24VDC/24VAC, 60HZ
ASP-211	Cover plate for single-gang box
ASP-422	Cover plate for double-gang box
ASP-432	Cover plate for double-gang box with switch option
BZ-50	Power Pack: 120/277VAC, 50/60Hz, 20A ballast or incandescent
BZ-150	Power Pack: 120/277VAC, 50/60Hz, 20A ballast or incandescent, with Hold-On and Hold-Off capability
BZ-200	Power Pack: 120/277VAC, 50/60 Hz, 20A Ballast/ELV/MLV/Incandescent/LED, 16A, E-Ballast/CFL/Plug Load
BZ-250	Power Pack: 120/277VAC, 50/60 Hz, 20A, Ballast/ELV/MLV/Incandescent/LED, 16A E-Ballast/CFL/Plug Load, with Hold-On/Hold-Off capability
BZ-250-347	Power Pack: 120/347VAC, 50/60 Hz, 16A Ballast/ELV/MLV/Incandescent/LED/ E-Ballast/CFL, 15A Plug Load, with Hold-On/Hold-Off capability

TS-400-24 and cover plates are available in White (-W), Light Almond (-LA), Grey (-G), Black (-B), and Ivory (-I).

Cover plates are not included.

---

**WARRANTY INFORMATION**

Wattstopper warrants its products to be free of defects in materials and workmanship for a period of five (5) years. There are no obligations or liabilities on the part of Wattstopper for consequential damages arising out of, or in connection with, the use or performance of this product or other indirect damages with respect to loss of property, revenue or profit, or cost of removal, installation or reinstallation.

**INFORMATIONS RELATIVES À LA GARANTIE**

Wattstopper garantit que ses produits sont exempts de défauts de matériaux et de fabrication pour une période de cinq (5) ans. Wattstopper ne peut être tenu responsable de tout dommage consécutif causé par ou lié à l'utilisation ou à la performance de ce produit ou tout autre dommage indirect lié à la perte de propriété, de revenus, ou de profits, ou aux coûts d'enlèvement, d'installation ou de réinstallation.

**INFORMACIÓN DE LA GARANTÍA**

Wattstopper garantiza que sus productos están libres de defectos en materiales y mano de obra por un período de cinco (5) años. No existen obligaciones ni responsabilidades por parte de Wattstopper por daños consecuentes que se deriven o estén relacionados con el uso o el rendimiento de este producto u otros daños indirectos con respecto a la pérdida de propiedad, renta o ganancias, o al costo de extracción, instalación o reinstalación.

---