

# TZ SERIES

## MANUAL BYPASS SWITCHES RESERVE POWER STANDARD ASTRONOMIC TIME SWITCH



CALIFORNIA Title 24  
ASHRAE 90.1

### APPLICATIONS

- Schools
- Industrial yards
- Shop windows
- Parking lots
- Highway signs
- Bridges

### FEATURES

**SCHEDULING:** Turn ON at sunset and OFF at sunrise daily. OFF time can be set from 8:30PM to 2:30AM. Can be individually offset +/- 20 or 40 minutes from both sunset and OFF times. Available from 18° - 45° northern latitudes.

**SKIP-A-DAY:** Omit operations on any day with a 7 spoke wheel marked with days of the week. 3 omitting screws included.

**MANUAL OVERRIDE:** Until the next regularly scheduled ON or OFF, automatic operation then resumes.

**MANUAL BYPASS SWITCHES:** Single pole, 20 Amps - one per circuit. Factory pre-wired to terminal strip. ON/OFF/AUTO positions for each circuit is independent, will not disturb automatic settings.

**RESERVE POWER:** Standard feature on all models keep dial on time up to 24 hours during power outage.

**NOTE:** All models are designed to control a contactor circuit and are not recommended for direct switching of most lighting loads.

### ORDERING INFO

CATALOG NO.	UPC CODE	INPUT SUPPLY (VAC) 60Hz	OUTPUT CONTACTS	ENCLOSURE TYPE
TZ-220L*	**	120	DPDT	Metal Indoor NEMA 1
TZ-220L-0*	**	120	DPDT	Metal Indoor/outdoor NEMA 3
TZ-222L*	**	208 - 277	DPDT	Metal Indoor NEMA 1
TZ-300L*	**	120	3PST	Metal Indoor NEMA 1
TZ-300L-0*	**	120	3PST	Metal Indoor/outdoor NEMA 3
TZ-302L*	**	208 - 277	3PST	Metal Indoor NEMA 1
Replacement Motor		For "L" models #36 (120V) & #46 (208-277V)		
Replacement Bypass Switch		#66061		

\*Add degrees latitude to complete number (18, 30, 34, 38, 40, 42, or 45).

\*\*Consult factory for UPC number.

<http://waterheatertimer.org/Tork-timers-and-manuals.html>

### SPECIFICATIONS

**INPUT VOLTAGE:**  
120 or 208 - 277VAC, 60Hz, varies by model.

**TIMING ACCURACY:** Line frequency.

**TERMINAL RANGE:** #8 - #14AWG.

**OPERATING TEMPERATURE:**  
-40° to 165°F (-40° to +74°C).

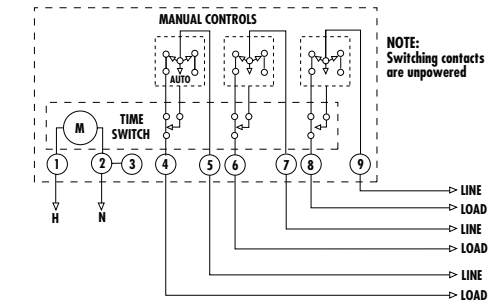
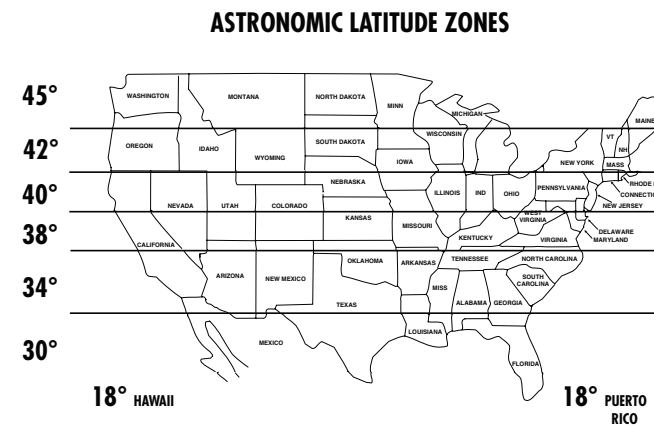
**POWER CONSUMPTION:** 5 watts maximum.

**ENCLOSURE:** Indoor NEMA 1 Metal with lockable hasp and for some models enclosures is Indoor/Outdoor NEMA 3 metal with suffix "0"  
(see page 153 for enclosure dimensions).

### CONTACT RATINGS

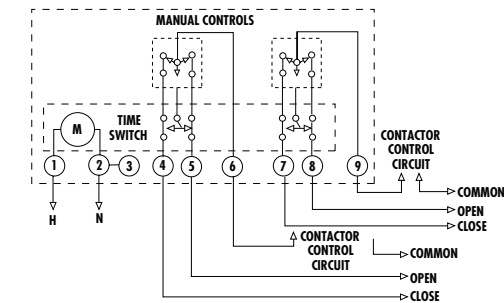
TYPE	VOLTAGE	CONTACT RATING
General Purpose	120/277VAC	20A
Motor	120VAC 240VAC	1HP 2HP

### WIRING DIAGRAMS



### TZ300L

When single line source is used, jumper terminals 1, 5, 7, 9 and connect all commons to terminals 2 and 3.



### TZ220L

Wiring shown is for mechanically held contactors. Use CLOSE terminal only for magnetically held contactors and to control direct loads not exceeding 2000 watts.

### SPECIFICATION WRITER'S GUIDE

Furnish and install, where shown, a TORK time switch with Astronomic dial and day-omitting device, and a 3-way manual switch for each circuit. The time switch shall be powered by a self-starting synchronous motor with spring-driven reserve, which shall be sufficient to operate the time switch contacts at least 16 hours after power failure. On restoration of power, time switch shall transfer to synchronous motor drive and automatically rewind reserve. ON operation shall occur automatically at sunset in (city of use). OFF operation shall be adjustable from 8:30 P.M. to 2:30 A.M. in one-half hour increments or at sunrise. Both ON and OFF shall have a range of adjustability of 20 or 40 minutes before or after sunset and sunrise. Time switch contacts shall be capable of carrying a minimum of 20 amperes per pole continuously at 277 volts and shall be DPST (3PST). Manual switches shall be provided as an integral part of the time switch, one for each pole, and shall permit manual switching to maintained ON or OFF positions until manually returned to AUTOMATIC position. Terminal strip shall be capable of receiving #10AWG wires. Enclosure shall be NEMA 1 surface type, finished in beige enamel, and with 1/2" - 3/4" combination knock-outs on bottom, both sides and top. Provision shall be made for positive padlocking. (Specify "E" door for manual switches to be accessible when case is locked). Time switch shall be TORK Model TZ-\_\_\_ (to fit requirement).