# TORK MODELS SSA100, SSA200

# **Operating and Installation Instructions**

# **Description and Functional Summary**

Tork model SSA100/SSA200 is a solid state interval timer designed to control lighting and motor loads. Momentarily pressing the start/stop button located on the front of the unit will turn the load ON and start the count-down time (set by the user utilizing the Dip Switches) at the end of which the load will turn OFF. If there is a need to turn the load OFF before the count-down time has expired, press the start/ stop button momentarily. The unit can be programmed via Dip Switch settings to flicker the load (lights), and/or beep as a warning indicating that the load is about to turn OFF. A scroll option can be set to temporarily change the preset count-down time by pressing and holding down the start/stop button for more than 3 seconds.

**Dual Voltage Input:** 120/277VAC (No Minimum Load)

**Environment:** 

Operating Temperature: 0-100° F

Operating Humidity: 90% RH Non-condensing

# **Contact Rating:**

TYPE OF LOAD	120VAC	277 VAC
Tunsgten	800W	
Ballast	800W	1200W
Motor	1/6 HP	<b>–</b>
Pilot Duty	240VA	-

Note: No minimum load required.

#### **Features**

- LCD display stands out strongly in lighted areas and is backlit for visibility in dark areas.
- Tamper resistant time-on interval can be preset. In addition, a manual scroll-up mode (in 10 minute intervals) can override the dip switch setting temporarily – this feature can be disabled, thereby providing a fixed interval timer.
- In addition to a numerical read-out the LCD displays 10 bars at start of time on period. As interval counts down, one bar at a time turns off in 10% decrements.
- Flicker of lights and/or beep warning begins 2 minutes before time out (either or both can be disabled).
- Zero Power switching prolongs life of relay contacts by switching high inrush equipment at or close to zero power.
- Compatible with electronic ballasts, incandescent lighting, or motor loads.
- Decorator type face with matching wallplate included.

**Settings** (See configuration charts below)

- Tamper resistant time-on interval can be preset. In addition, a manual scroll-up mode (in 10 minute intervals) can override the dip switch setting temporarily – this feature can be disabled, thereby providing a fixed interval timer.
- Flicker of lights and/or beep warning begins 2 minutes before time out (either or both can be disabled). It is essential that you select your settings before

installing the unit in the box.

#### 1. COUNT-DOWN TIME PERIOD

Set the desired count-down time period using dip switches #1, 2, and 3.

#### 2. FLICKER WARNING BEFORE TIME OUT

Set Dip Switch #4 (UP) to **disable** warning Flicker feature.

Set Dip Switch #4 (DOWN) to **enable** warning Flicker feature.

 Flicker warning if enabled, occurs at 2 minutes and 1 minute before timing out.

#### 3. BEEPER WARNING BEFORE TIME OUT

Set Dip Switch #5 (UP) to disable warning Beep feature.

Set Dip Switch #5 (DOWN) to **enable** warning Beep feature.

 Beeper warning starts 2 minutes before timing out and every 12 seconds, thereafter.

#### 4. SCROLL

Set Dip Switch #6 (UP) to **disable** Scroll feature. Set Dip Switch #6 (DOWN) to **enable** Scroll feature.

#### SSA100 Series

		_
1	2	3
A		Δ
	A	V
A	V	A
A	V	V
V	A	A
V	A	V
Y	V	A
¥	Y	¥
	1	1 2 A A A A A A Y A Y A Y A Y Y Y Y

DIP SWITCH #						
3	4	5	6			
	-		3 4 5			

5 6	4	DIP SWITCH #
	V	FLICKER ON
	A	FLICKER OFF
V		BEEPER ON
Δ		BEEPER OFF
1		SCROLL ON
		SCROLL OFF

#### SSA200 Series

DIP SWITCH #	1	2	3
10 MIN	A	A	lack
20 MIN	A	A	V
40 MIN	A	V	A
60 MIN	Ā	V	V
90 MIN	Y	A	
2 HR	V		V
4 HR	V	V	A
8 HR	₹	V	V

DIP SWITCH #					
1	2	3	4	5	6

DIP SWITCH #	4	5	6
FLICKER ON	V		
FLICKER OFF	A		
BEEPER ON		V	
BEEPER OFF		A	
SCROLL ON			V
SCROLL OFF	Γ		A
001111111111111111111111111111111111111	1	L	

**TORK®** 

1 GROVE STREET, MT. VERNON, NY 10550 TEL: 914-664-3542

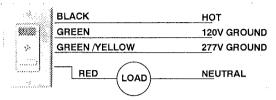
FAX: 914-664-5052

#### Installation

CAUTION: BEFORE WIRING AND SERVICING, POWER TO THIS TIME SWITCH AND THE EQUIPMENT IT CONTROLS MUST BE TURNED OFF AT THE MAIN PANEL.

**WARNING:** UNIT <u>MUST</u> BE PROPERLY GROUNDED TO OPERATE CORRECTLY.

1. Connect wires as shown in wiring diagram below.



- 2. Cap unused ground wire.
- Mount the timer inside electrical box using 2 mounting screws provided.
- 4. Install enclosed cover plate.
- 5. Turn power on at the electrical panel.
- 6. Allow 25 second warm-up time after unit is powered up.
  - LCD message "OFF" will be displayed as a default and load will be switched OFF.

### Operation

- To turn load ON, depress START/STOP button momentarily.
  - The LCD will display the count-down time interval selected at the dip-switches. Time interval will start counting down.
  - In addition to numerical read-out LCD displays 10 bars at start of time on period. As interval counts down, one bar at a time turns off in 10% decrements.

**Note:** Intervals up to 60 minutes inclusive will be displayed in the following format:

59:50



# Abbreviated Operating Instructions (Cut along dotted lines)

The start/stop push button is located on the face of the unit

- To turn on load push the button momentarily. The LCD will display the preset interval and begin counting down. Intervals up to 1 hour will display minutes and seconds. Intervals over 1 hour will display hours and minutes.
- 2. To reset up to its original preset interval **while the load is on** hold the button in for 1 or 2 seconds.
- If the scroll feature is enabled, other than the preset interval can be temporarily set. Hold the button in for over 3 seconds and timer begins to scroll up in 10 minute increments. Release the button at the desired setting.
- 4. To turn **load off** at any time, push the button momentarily.

where 2 left digits represent minutes and 2 right digits represent seconds. Colon will not be flashing.

Intervals longer than 1 hr. will be displayed in the following format:

# 1.1:59

where 2 left digits represent hours and 2 right digits represent minutes. Colon will be flashing, indicating seconds counting down. If count-down time is longer than 1 hour, the format will automatically change from (HH:MM) to (MM:SS) as soon as remaining time is less than 1 hour. (59:59).

- To turn off load during the count-down, depress the START/STOP button momentarily. The load will be switched OFF and message "OFF" will be displayed.
- 3. To reset the timer to its initial start value, any time during count-down, depress the START/STOP button for 2 seconds and release when the original interval is displayed.
- 4. To Scroll to another interval, press and hold down START/STOP button for more than 3 seconds. If the scroll feature is enabled by dip switch, the display will scroll through intervals starting at 10:00 mins. and finishing at (12:00 hrs for model SSA100) (8:00 hrs. for model SSA200). The scrolling is done in ascending order in 10 min. increments. Release the START/STOP button to start selected count-down time. Scrolling is continuous as long as the start/stop button is depressed. When scrolled to the maximum time (12:00 hrs SSA100) (8:00 hrs SSA200), the time will restart from 10:00 minutes as long as the START/STOP button remains depressed.
- 5. Percent time remaining bar graph will be displayed each time the interval is started. All 10 bars will be ON at start indicating 100% time remaining. As the interval is counting down, the bars will be turned OFF one bar at a time (10%) starting at the right side of the LCD display. At the end of count-down time, all bars will be OFF.
- 6. To change dip switch configuration:
  - a, Tum POWER OFF AT THE MAIN CIRCUIT BREAKER.
  - b. Remove wall cover plate and pull out the unit from the wall box. Dip switches should now be accessible.
  - c. Set the desired Dip Switch configuration.
  - d. Reinstall the unit and wall cover plate.
  - e, Turn POWER ON AT MAIN CIRCUIT BREAKER.

# **Troubleshooting**

- To test unit, set dip switch to minimal time out interval (5 minutes for model SSA100), or (10 minutes for model SSA200).
- 2. Unit does not function:
  - a. Check GROUND wire, make sure it is attached properly and make sure the box has good ground.
  - b. Check all other wiring to make sure connection is secure.
  - c. Check if power is turned back on at the main circuit breaker panel.
  - d. If unit still does not function, consult factory.
- Load will not turn off automatically: Check if the load goes ON/OFF when pressing start/stop button. If not, check red wire for good connection. If load does go ON/OFF, consult factory.

TORK product specifications and operating instructions via fax – call 914-667-6190.