

TORK[®]

INSTRUCTION MANUAL

CLOCK OPERATED SWITCH



DIGITAL TIME SWITCH

E101B
E103B
E120B



FOR TECHNICAL SUPPORT:
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MLI-177(REVA)

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**TORK MODELS E101B / E103B / E120B
24 HOUR DIGITAL TIME SWITCH**

READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL TIME SWITCH. SEE WARNING ON FRONT PANEL – Failure to comply with instructions could result in personal injury and/or property damage.

INSTALLATION:

UNIT IS TO BE INSTALLED BY A LICENSED ELECTRICIAN

1. To remove unit from enclosure: Push the tab on right to swing unit the left and remove.
2. Mount the enclosure at eye level using screws or other suitable fastening device. Bring supply and load wires in through or side knockouts. DO NOT USE TOP.
3. Unit should be programmed with AC power only and not while on super cap back up power.
4. Reinstall unit by reversing step #1 above and connecting wires to units as per suggested wiring diagrams. See illustration and warning on back page.
5. To reset the timer, insert a paperclip on the small hole next to the EVENT key. This procedure will allow you to reset the time but will not clear the memory.

CAPABILITIES

- 24 Hour Day scheduling.
- ON and OFF set points
Total # - 20 per day
- Minimum setting: 1 minute

FEATURES

Daylight Saving	Automatic (can be adjusted).
Leap Year	Automatic compensation.
Display	LCD
Manual Override	Until the next schedule ON or OFF. Automatic operation then resumes.
Power Outage	Permanent schedule retention. Supercapacitor maintains real time up to 4 days.

KEY FUNCTIONS:

Unit should be program with AC power. Do not program on super cap back up power.

Mode: Press to go to the next mode.

Enter: Stores or saves current entry.

DAY/YEAR:

- a. Press to set the year in the DATE mode.
- b. Selects the desired day of the week in the DST (Daylight Savings Time) mode.

OVR:

- a. Press to change the load status in the AUTO (automatic) and the MAN (manual) mode.

DEL/PREV:

- a. Press to delete the displayed entry.
- b. Decrement the last selected entry.

HOUR/MONTH:

- a. Press to set hour in CLK (clock) mode and the SCH (schedule) mode.
- b. Press to set month in the DATE mode and DST (Daylight Savings Time) mode.

MINUTE/DATE:

- a. Press to set minutes in CLK (clock) mode and SCH (schedule) mode.
- b. Press to set date in the DATE mode.
- c. Press to select the week of the month in DST (Daylight Savings Time).

ENTER:

- a. Press to store the displayed information into memory. **Information will not be stored until the ENTER key is pressed.**

Note: During settings, each press of the key will advance one number. For rapid advance hold key in.

EVENT:

- a. Press to select ON/OFF in the schedule.
- b. Press to update the load status In the AUTO (automatic) mode.

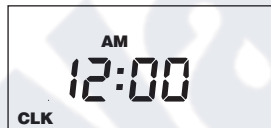
PROGRAMMING YOUR E101B / E103B / E120B

NOTE: AFTER MAKING ANY CHANGES TO THE PROGRAM, PRESS **MODE** TO GO TO RUN MODE AND THEN PRESS **EVENT** TO UPDATE THE LOAD STATUS.

AT POWER UP:

When powering up the unit for the first time, the display will show E1 60 r - 0A, then 12:00 will flash on the display. NOTE: Allow 1-2 minutes for the supercap to charge before any display is shown.

Press the **MODE** key to go to the CLK mode. After pressing the **MODE** key the display will show:



1.0 TO SET CLOCK

Press **HOUR** and **MIN** to advance to the present hour and mins. Check AM/PM, and press **ENTER**.

1.1 TO MODIFY CLOCK

Press **MODE** until the display shows: CLK. Press **HOUR** and **MIN**. to modify clock and press **ENTER**.

2.0 TO SET DATE

If you are setting for the first time, display will show:



Press **MONTH**, **DATE**, and **YEAR** key to advance to the desired Month, date and year, then press **ENTER**.

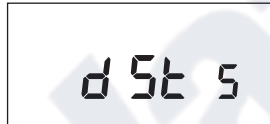
NOTE: The day of the week will be automatically set once the date is set.

2.1 TO MODIFY DATE

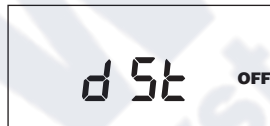
Press **MODE** until the display shows DATE. Press **MONTH**, **DATE** and **YEAR** to modify present settings and then press **ENTER**.

3.0 DAYLIGHT SAVING TIME

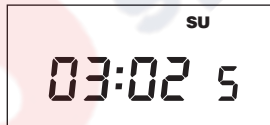
After setting or modifying the date, display will show:



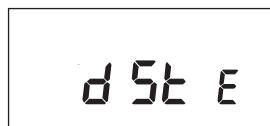
NOTE: If daylight saving time (DST) is NOT required, press **MODE**, display will show:



If daylight savings is required, press **ENTER**, display will show:



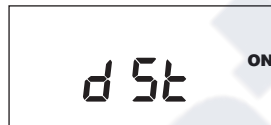
NOTE: Day of week will be assigned to the 1st, 2nd, 3rd or Last (L) Sunday of the month. Press **ENTER** to accept default dates (second Sunday in March) or press **MONTH**, **DATE**, and **DAY** to modify DST settings and press **ENTER**. The display will show:



Press **ENTER** and the display will show:



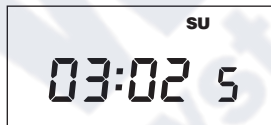
Press **ENTER** to accept default dates (first Sunday in November) or press **MONTH**, **DATE**, and **DAY** to modify DST settings and press **ENTER**. Press **MODE**, the display will show:



NOTE: DST OFF indicates Daylight Savings Time was not set.

3.1 TO MODIFY OR DELETE DAYLIGHT SAVING TIME SETTINGS.

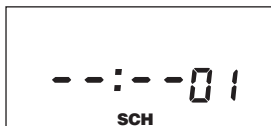
Press **MODE** until display shows:



Press **MONTH**, **DATE** and **DAY** to modify DST start settings, to delete, press **DEL**. Press **ENTER**. Press **MONTH**, **DATE** and **DAY** to modify DST end settings, to delete, press **DEL**. Press **ENTER**. Press **MODE** to return to **AUTO** mode.

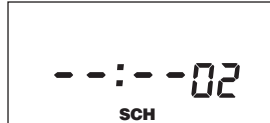
4.0 SCHEDULE SET MODE

Press **MODE** until display shows:



4.1 SETTING HOURS AND MINUTES

Press **HOUR** and **MIN** to set desired time. Press **EVENT** to set desired event (ON/OFF) and then press **ENTER**. The display will show:



Follow the same procedures above to set more schedule entries.

5.0 REVIEW, MODIFY AND DELETE

Press **MODE** to advance to any of the following MODES:

1. **CLOCK MODE:** Press **HOUR** and **MIN** to modify existing settings. Press **ENTER**.
2. **DATE MODE:** Press **MONTH**, **DATE** and **YEAR** to modify existing settings. Press **ENTER**. **DAY** is automatically adjusted.
3. **DST Daylight Saving Time:** To review press **ENTER**. To modify press **MONTH**, **DATE** and **DAY** to change existing setting. Press **ENTER**.
4. **SCHEDULE MODE:** Press **HOUR**, **MIN** and **EVENT** to modify time settings. Press **DEL** to delete. Press **ENTER** after each modification.
5. **RUN MODE:** The time, day, seconds, the load status and **AUTO** is displayed.

6.0 OVERRIDE

OVR (Override) is effective in the **AUTO mode** and the **manual mode**. **OVR** on the **AUTO mode** is effective until the next event. **OVR** on the **manual mode** is effective indefinitely.

7.0 NOTES:

1. MAN mode: Under this mode the unit disregards the settings in the schedule mode and remains in its manually set status ON or OFF. **NOTE:** To resume regular schedule execution press the mode key to return to **AUTO** mode.
2. Unit will go to RUN MODE automatically (except on the MAN mode) if no key is pressed for five minutes.
3. Clear all memory. All memory can be cleared using the following procedure: While in the RUN mode, press **ENTER**, display will show:

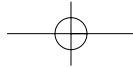


Use **EVENT** key to display:



Now press **ENTER** briefly and everything in the timer memory will be erased, including real time and date. **NOTE:** Unit has permanent memory and will not be erased unless done through procedure above.

5. Upon powering up your E101B/103B/120B the display will show at what frequency the unit is operating, 50 will determine 50Hz or 60 for 60Hz. **NOTE:** While in the AUTO mode, if AC power is absent, the display will show a PF (power failure) instead of the seconds scrolling up.
6. A "Lo" on the display indicates that the super cap has run low and the unit needs to be powered with AC. A minimum of 8 hours is required to fully charge the super cap.



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