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TORK MODEL EWZ101/103/120
7 DAY 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. Reinstall unit by reversing step #1 above and connecting wires to units as per suggested wiring diagrams. See illustration and warning on back page.

CAPABILITIES
- 7 Day scheduling.
- ON and OFF set points:
  Total number of events - 20 per day / week.
- Minimum setting – 1 minute
- Capable of different schedules each day of the week
- Astronomic Option. For automatic ON at sunset, OFF at sunrise for outdoor lighting.

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 Super capacitor maintains real time up to 4 days.
PROGRAMMING YOUR EWZ 101/103/120

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:
Unit should be program with AC power. Do not program under super cap back up power. When powering up the unit for the first time, allow 1-2 minutes for supercap to charge, then 12:00 will flash on the display. Press reset button after 2 minutes if screen is blank.

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

```
AM
CLK
12:00
```

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 an MIN. to modify clock and press ENTER.

2.0 TO SET DATE
If you are setting for the first time, display will show:

```
MO
DATE
01:01:07
```

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:

```
ON  d St
```

a. For standard USA daylight savings (DSt), press MODE and go to step 4.0.
b. For dates other than standard USA dates, press MONTH and go to step 3.1.
c. If daylight saving time (DSt) is NOT required, press DEL and display will show:

```
OFF d St
```

Press ENTER then go to step 4.0.

3.1 TO MODIFY STANDARD USA DAYLIGHT SAVINGS DATES

NOTE: The first two digits represent the month and the second set of digits represent the week in the month. Choices for week are 01 (1st), 02 (2nd), 03 (3rd) or L (Last) week of the month. The default day is Sunday (SU). Once modified date is set, the unit will automatically calculate the correct start dates in the future.
4.0 SCHEDULE SET MODE
Press MODE until display shows:

Now press MONTH and DATE buttons to modify the starting DST settings. Pressing DAY changes default day. EXAMPLE: A screen showing "04:01 SU S" represents April (04), the first week (01), Sunday (SU), and the Start (S) of daylight savings time.

Press ENTER to save and the display will show:

Now press MONTH and DATE buttons to modify the ending DST settings. Pressing DAY changes default day. EXAMPLE: A screen showing "10:L SU E" represents October (10), the last week (L), Sunday (SU), and the End (E) of daylight savings time.

Press ENTER to save and the display will show the modified DST starting date.

Press MODE twice to go to step 4.0.
Follow the same procedures above to set more schedule entries.

5.0 TO SET ASTRONOMIC SCHEDULE
Press MODE until display shows:

```
ASTRO
LAT +/-
```

Press LAT key to advance to the desired degree of latitude, from 0° to 60° north or 0° to 60° south. Press ENTER.

```
ASTRO
ON --:--
```

5.1 SELECTING ASTRO DAYS
Press DAY to select desired days in which you want the load to turn ON at sunset and then press ENTER. NOTE: Sunset Time will be based on Date and Latitude entered. The display will show:

```
MO TU WE TH FR SA SU ASTRO OFFSET
ON 00:00
```

If an offset to sunset time is required, press HOUR and MIN. Offset can be set to 4 hours and 59 minutes max. Press EVENT to select + or – and then press ENTER. NOTE: A + sign will turn load ON that many hours and/or minutes after sunset. A - sign will turn load ON that many hours and/or minutes before sunset. The display will show:

```
ASTRO
OFF --:--
```

Press DAY and then ENTER to activate sunrise time. NOTE: To turn load OFF at a preset OFF
time, leave this field blank. Press ENTER. The display will show:

![MO TU WE TH FR SA SU ASTRO OFFSET OFF 00:00](image)

If an offset to sunrise time is required, press HOUR and MIN. Offset can be set to 4 hours and 59 minutes max. Press EVENT to select + or – and then press ENTER.

**NOTE:** A + sign will turn load OFF that many hours and/or minutes after sunrise. A - sign will turn load OFF that many hours and/or minutes before sunrise. Press the MODE to return to the AUTO mode.

### 6.0 ASTRONOMIC ON AND TIME OFF

Set astronomical ON per sections 5.0 and 5.1

**TIME OFF:**

Press MODE until “sch01” appears. Press ENTER until a blank schedule appears. Press HOUR, MIN and EVENT to set desired OFF time. Press DAY to select desired days and then press ENTER.

### 6.1 TIME ON AND ASTRONOMIC OFF

Press MODE until “sch01” appears. Press ENTER until a blank schedule appears. Press HOUR, MIN and EVENT to set desired ON time. Press DAY to select desired days and then press ENTER.

**ASTRO OFF:**

Set astronomical OFF per sections 5.0 and 5.1

### 6.2 TO DELETE ASTRONOMIC SETTINGS

Press MODE until the display shows:

a. To delete individual settings.

![CH1 ASTRO LA 40°](image)

Press ENTER. Press DEL and then ENTER to delete sunset settings. Press ENTER to advance
sunrise settings. To delete sunrise setting, press DEL and ENTER.

b. To delete the astro schedule for sunset and sunrise. Press MODE until the display shows:

![ASTRO Mode Display](image)

Press DEL and ENTER. The display will show:

![ASTRO Mode Display](image)

Press the MODE key to return to the AUTO mode.

7.0 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 DAY to modify days, DEL to delete. Press ENTER after each modification.

5. ASTRO MODE: Press LAT to change latitude. Press ENTER. Press DAY to add or delete days in the sunset mode. Press ENTER. Press HOUR and/or MIN to change offset time for sunset. Press EVENT to change offset from + to –. Press
ENTER and follow the same procedure above to modify or review sunrise settings.

6. RUN MODE: The time, day, seconds, the load status and AUTO is displayed.

8.0 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.

9.0 EVENT (in the RUN mode) key is used to update the load status. It will execute the last scheduled event. If there is no schedule programmed, the display will show —:—

10.0 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.

4. Upon powering up your timer 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.

5. 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.

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