

TORK MODEL DGLC DIGITAL LIGHTING CONTROLLER

Installation & Operation

READ INSTRUCTIONS CAREFULLY BEFORE SETTING UNIT

PHOTOCELL MODEL EPC1 IS SUPPLIED WITH THE DIGITAL TIME SWITCH

FEATURES

Single channel controller - 2 circuit

Circuit #1: Photocell ON/Time OFF/Time ON/Photocell OFF, Selectable days

Circuit #2: Photocell ON/Photocell OFF, Everyday

7 day scheduling

Special day scheduling

32 set points

Battery back-up - uses standard 9 volt non-rechargeable (not supplied). Lithium averages 275 hours of power outage; Alkaline averages 100 hours

Manual override to the next scheduled event

Automatic daylight saving - user selectable

Automatic leap year compensation

AM/PM or 24 Hour format - user selectable

INSTALLATION

UNIT IS TO BE INSTALLED BY A LICENSED ELECTRICIAN

1. Remove the photocell (EPC1) from the time switch enclosure (lift insulating board at bottom).
2. To remove unit from enclosure: Push tab on right to swing unit to the left and remove.
3. Mount the enclosure at eye level using screws or other suitable fastening device. Bring supply and load wires in through the bottom or side knockouts. DO NOT USE TOP KNOCKOUTS.

Clock input wires to controller must be from a dedicated source i.e. no other loads connected to the same circuit.

4. Install standard 9 volt lithium or alkaline battery (not supplied) by gently squeezing the right side of the battery cover on the front of unit and pull to open. Pull out the battery connector and connect the battery. Reinstall battery cover. Lithium should be replaced every 3-5 years; alkaline every year.

NOTE: Unit can also be programmed using battery power only.

5. Reinstall unit by reversing step # 1 above and connect wires to unit as per suggested wiring diagrams. See illustration on enclosure label.
6. The photocell can be mounted directly through a standard 1/2" knockout. Connection to junction box must be watertight through a tapped opening and the use of a nut and neoprene washer to be provided by the installer. In addition, use suitable tape or sealant on nipple threads. **Mounting is recommended in the upright position with cell facing North for optimum efficiency.**

Protect the window side of the photocell from any direct artificial light that may be on after dark, from windows, signs, and the artificial light being controlled.

Locate the photocell in as open a spot as possible. Particularly keep it out of corners and overhanging eaves.

Do not wire the photocell while AC current is applied to the unit.

Do not apply any voltage from external source to photocell input terminals.

PHOTOCELL INPUT

Connect Photocell (EPC1) to input terminals labeled (1 & 2).

One photocell controls both circuits.

POTENTIOMETER:

Adjust potentiometer labeled (MIN MAX) for desired light level actuation. If adjusted to the extreme left (MIN position), the ON relay will close

at 1 to 2 footcandles. If adjusted to the extreme right (MAX position), the ON relay will close at approximately 100 footcandles. (There is a 2 - 4 second built-in delay).

LIGHT LEVEL ADJ.



MIN MAX

IMPORTANT: The potentiometer allows you to adjust a turn ON at 1 to 100 footcandles. OFF will be 3 times the ratio of the ON foot candle level. **Light level adjustment is the same for both circuits.**

IMPORTANT NOTES CONCERNING THE PHOTOCCELL INPUT:

1. An ON event must be scheduled prior to sunset in order for the photocell to activate circuit #1. Timer can then be scheduled OFF and later ON again before sunrise for any desired days.
2. Circuit #2 is directly controlled by photocell and light level adjustment. It is not governed by timer or the manual override.
3. Photocell can be wired up to 500 feet from timer using 2 wire, #18 to #22 AWG, between input terminal and photocell.
4. Do not put excessive pressure on potentiometer. Use thumb and forefinger or small screwdriver to adjust for light level. Avoid shorting screwdriver to upper board.
5. Light level adjustment operates **only** with Tork Photocell Model EPC1.

DAY
MONTH

HOUR
DATE

MIN
YEAR

OVER-
RIDE

MODE

SP DAY

ON/OFF

ENTER

KEY FUNCTIONS

DAY/MONTH: Press to advance the day in the CLK mode. Press to advance the Month in the DATE mode.

HOUR/DATE: Press to set the Hours in the CLK mode and in the Schedule SET mode. Press to advance Date in the DATE mode.

MIN/YEAR: Press to set the Minute in the CLK mode and in the Schedule SET mode. Press to advance Year in the DATE mode.

OVERRIDE: Press to alter the Load status and/or to Override scheduled event on circuit #1 only.

MODE: Press to advance to next mode without affecting the scheduled memory information. Sequence is: RUN, CLK, DATE, schedule SET. **In the SET mode, unit automatically reverts to the RUN mode if no entries are made for 5 minutes.**

SP DAY: Press during RUN mode to execute the "SPECIAL DAY" schedule everyday. LCD will display D in upper right corner. Pressing SP DAY again will toggle the unit back to normal 7 day program operation.

ON/OFF: Pressing each time will select an ON or an OFF. Multiple OFF's may be scheduled to cancel override ON's.

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

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

SELECT AM/PM OR 24 HOUR

MILITARY FORMAT:

Upon powering up the unit the LCD will display the model number 100. The LCD will next display 12H which is an automatic (AM/PM) format.



Press ENTER to keep AM/PM format or press HOUR key to alter to 24 hour (Military) format and then press ENTER.

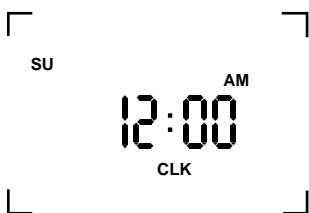
Once the ENTER is pressed, unit goes to RUN mode. You can recognize that the unit is in the RUN mode when the real time (including seconds) is displayed.



NOTE: Once you select and ENTER the above format (either AM/PM or 24 hour military), you cannot alter it without removing all power to the unit by disconnecting the battery and line power.

TO SET CLOCK

Press MODE key; display shows CLK.



Press DAY/MONTH key to set today's day. Press HOUR key to set present hour (check AM/PM) Press MIN key to set present minute. Press ENTER key. Unit now stores present time. Seconds are set to zero.

DAYLIGHT SAVING

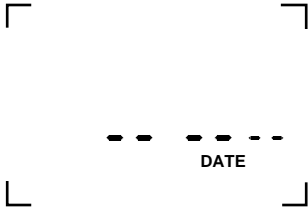
The user may select either standard U.S. Option or no daylight saving at all.

1. U.S. OPTION: Daylight saving is automatically set when entering the current month/date/year. The unit will add one hour on the first Sunday in April, and subtract one hour on the last Sunday in October. You never need to look up the tables, or enter the spring and fall correction dates yourself.
2. NO DAYLIGHT SAVING: The unit will not be configured for daylight saving time corrections by not entering the month/date/year.

TO SET DATE

Note: Enter only if automatic daylight saving is desired. If not required, do not set date. Instead, skip the following section and press **MODE** key until display shows set.

Press **MODE** key until display shows DATE.

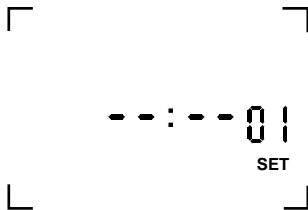


Press **MONTH** key to set present month. Press **DATE** key to set today's date. Press **YEAR** key to set present year. Press **ENTER** key. Unit now stores present date.

NOTE: If the unit has correct entry for the calendar, then the unit will go into the SET mode. If the calendar has an incorrect entry, then the unit will stay in the DATE mode, with MM--YY displayed, signifying that the date does not correspond with the month, and/or year, i.e., Feb. 31, 1996. If this occurs, set the correct date, and then press **ENTER**.

TO SET SCHEDULE

For convenience, write out your desired schedule on a separate paper. If display does not show SET then press **MODE** key until display shows SET. The display will show --:--01, with the "01" signifying first schedule set point.



1. Press **DAY/MONTH** key to set day(s).

NOTE: The following is a listing of the sets of days which can be set:

MO, TU, WE, TH, FR

SA and SU (SA, SU only)

MO, TU, WE, TH, FR, SA

SU, MO, TU, WE, TH, FR, SA

Individual days: SU, MO, TU, WE, TH, FR, SA, and D for Special Day (usually a holiday).

A special holiday schedule can be entered if you want to be able to repeat this particular schedule on holidays only.

2. Press HOUR key to set hour {check AM/PM}.
3. Press MIN key to set minutes.
4. Once desired days are set, press ON/OFF key to set ON or OFF event. If all of the information you entered is correct, press ENTER key to store the event.

Display will now show --:--02. This tells you that the first event has been entered, and that the unit is ready to accept the second entry. Repeat preceding steps 1 to 4 to set more schedule events.

Note: When the unit is returned to the run mode, check the load status of the current setting. If it is showing OFF but should be ON, press the override key since the unit does not “look back” to the setting just entered. However, the unit will correct itself at the next scheduled event and no further alteration will be necessary.

SPECIAL DAY (HOLIDAY)

To execute this schedule at any time, simply press the SP DAY key while the unit is in the RUN mode. A letter “D” will appear in the upper right corner and the Special Day schedule (previously set) will repeat for as many days as you want. If no schedule was entered, the circuit #1 load will not turn ON.

To return to normal 7 day program operation, press the SP DAY key again and the letter “D” will disappear, indicating regular program operation.

REVIEW/MODIFY/ADD/DELETE

REVIEW: Reviewing is done in the set mode. Press mode key until first setting appears. Pressing the ENTER button will advance the counter (which appears in the two digits on the

right) and shows you the next schedule event entered. Events are numbered based on the order with which they were entered, and not on when they will be executed, so the first event you set will be #01, the second #02, etc...

MODIFY: During the review process, the DAY HOUR, MIN, and ON/OFF keys can all be used to modify the settings. You can use the first three keys to modify when the event will take place, and the ON/OFF key to change an ON event to an OFF event, or visa-versa. **ONCE YOU HAVE MADE THE NECESSARY CHANGE, YOU MUST PRESS THE ENTER KEY (for each change) TO STORE THEM.**

ADD: You may add events at any time by pressing the mode key until the unit is in the set mode. Then press ENTER key to advance to the next open set point. Enter new schedule as indicated in section "To Set Schedule".

DELETE: If you choose to delete a schedule, simply modify the HOURS and MINUTES until the time display reads --:--. This will occur after scrolling past 11 P.M. with the HOUR key and "59" with the MIN key, then press ENTER to delete the event.

OVERRIDE (CIRCUIT #1 ONLY)

In order to temporarily change the current ON or OFF status of a load, simply press the override key. This can only be done when the unit is in the RUN mode. The load status will flash indicating that this is a change from a scheduled event.

In order to cancel the override, press override key again.

NOTE: CIRCUIT #1 LOAD STATUS IS SHOWN ON THE DISPLAY. CIRCUIT #2 LOAD WILL TURN ON AT SUNSET AND OFF AT SUNRISE EVERY DAY OF THE WEEK.