TORK
DGU100/DGUM100
7 DAY DIGITAL TIME SWITCH

INSTALLATION AND OPERATING INSTRUCTIONS

READ INSTRUCTIONS CAREFULLY BEFORE SETTING UNIT

INSTALLATION

UNIT IS TO BE INSTALLED BY A LICENSED ELECTRICIAN

1. To remove unit from enclosure: Push tab on right to swing unit to 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 the bottom or side knockouts. DO NOT USE TOP.

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

3. 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 be fully programmed using battery power only

4. Reinstall unit by reversing step #1 above and connect wires to unit as per suggested wiring diagrams. *See illustration on enclosure label.*

   Do not wire the photocell or remote maintained switch while AC current is applied to the unit.

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

PHOTOCELL INPUT

When connecting Photocell (EPC1) to Universal Input terminal labeled (1 2 3), connect wires to terminals 1 and 2. DO NOT USE TERMINAL MARKED 3. *See illustration on enclosure label.*

SELECTOR SWITCH:

If delayed response of 30 seconds is required (activation of photocell operation), move selector switch labeled (DELAY, QUICK, SW) to the Left position marked (DELAY).

If instance response is required move selector switch to the center position marked (QUICK).

**FUNCTION
SELECT SW**

DELAY QUICK SW
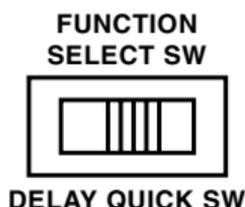
POTENTIOMETER:

Adjust potentiometer labeled (MIN MAX) for desired light level actuation. If adjusted to the extreme left (MIN position), turn ON will be 1 to 2 footcandles. If adjusted to the extreme right (MAX position), turn ON will be approximately 100 footcandles.

LIGHT LEVEL ADJ.

MIN   MAX

IMPORTANT: The potentiometer allows you to adjust a turn ON ranging from 1 to 100 footcandles. OFF will be 3 times the ratio of the ON foot candle level (see example "B" below).

When using photocell input, the following can be accomplished:

A. Photocell ON/Time OFF

B. Photocell ON/ Time OFF/ Time ON/ Photocell OFF.

DRY CONTACT INPUT

When connecting dry contact closure (i.e. remote maintained SPST switch) to universal input terminal labeled (1 2 3), connect wires to terminals 2 and 3. DO NOT USE TERMINAL 1. *See illustration on inside label.*

SELECTOR SWITCH:

Move selector switch labeled (DELAY, QUICK, SW) to the right position marked (SW).

With dry contact closure used, the following can be accomplished:

For Model DGU100:
When the output is OFF, closure of the remote switch will turn it ON until the next scheduled OFF.

When the output is ON, close then open the remote switch to turn it OFF (until the next scheduled ON).

For Model DGUM100:
When OFF is indicated on the LCD, closure of the remote switch will pulse it ON.

When ON is indicated on the LCD, opening of the remote switch will pulse it OFF.

IMPORTANT NOTES CONCERNING THE UNIVERSAL INPUT:

1. If the universal input is not being used for Photocell or Dry contact closure, move selector switch labeled (DELAY, QUICK, SW) to the right position marked (SW).

2. Photocell or remote switch can be wired up to 500 feet from timer using 2 wire, #18 to #22AWG, between universal input terminal and photocell or switch.

3. 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.

4. Light level adjustment operates **only** with Tork Photocell Model EPC1.

5. Remote switch input is designed for maintained switch.

DAY MONTH	HOUR DATE	MIN YEAR	OVER- RIDE

MODE	SP DAY	ON/ OFF	ENTER
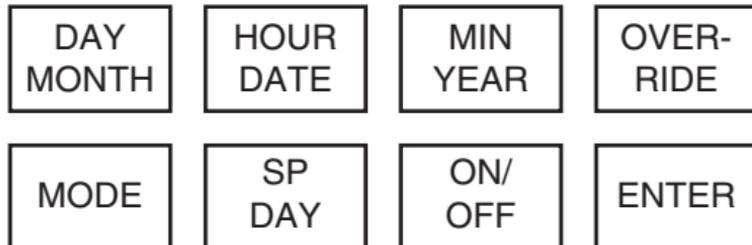
KEY FUNCTIONS

DAY/MONTH: Press to advance the day in the CLK/SCHEDULE SET 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.

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: **For Model DGU100:** Pressing each time will select an ON or OFF EVENT. **For Model DGUM100:** Pressing each time will select an ON relay pulse or OFF relay pulse. 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 down.

SELECT AM/PM OR 24 HOUR MILITARY FORMAT

Upon powering up the unit the LCD will display: **For Model DGU100:** the model number 100. **For Model DGUM100:** the number 100P. The LCD will next display 12H which is an automatic (AM/PM) format.

```
12 ᴴ
```

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.

```
SU                    AM
        12:00 01
OFF
```

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.

```
SU                    AM
        12:00
              CLK
```
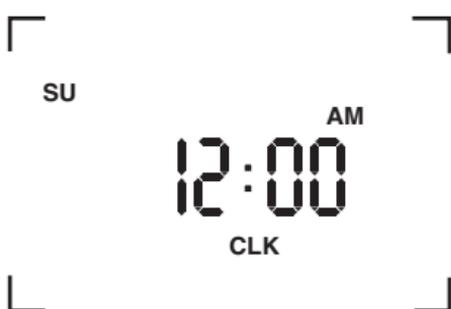
Press DAY/MONTH key to set today's day. Press HOUR key to set present hour (check AM/PM). Press MIN key to set present minute. Press ENTER key. Unit now stores present time. Seconds are set to zero.

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.

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, ie, Feb. 31, 2003. 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 entry for ON or OFF. (For Model DGUM100, ON pulse or OFF pulse).

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 to FR (MO, TU, WE, TH, FR)

SA and SU (SA, SU only)

MO to SA (MO, TU, WE, TH, FR, SA)

SU to SA (SU, MO, TU, WE, TH, FF, 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 above steps 1 to 4 to set more schedule events (keep in mind, an "ON" is one event and an "OFF" is another).

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 last event (ON or OFF) will remain active.

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

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.

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