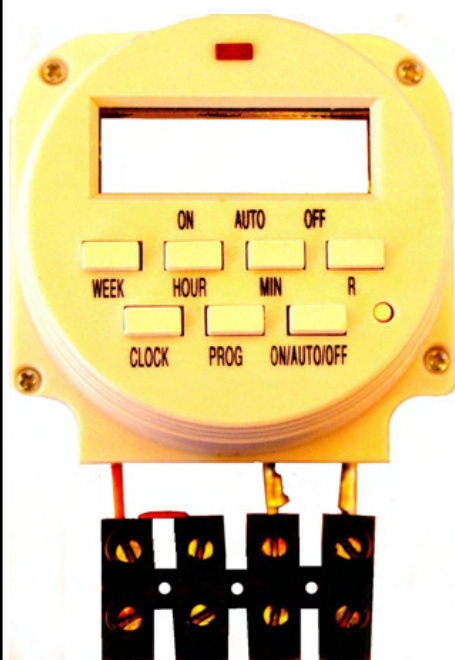# 24V Digital Timer
Programmable Switch with LCD Display

With a 24 volt digital timer you can turn DC lights, DC stereo, DC pump and other 24 volt appliances on and off at preset times or at random times automatically.
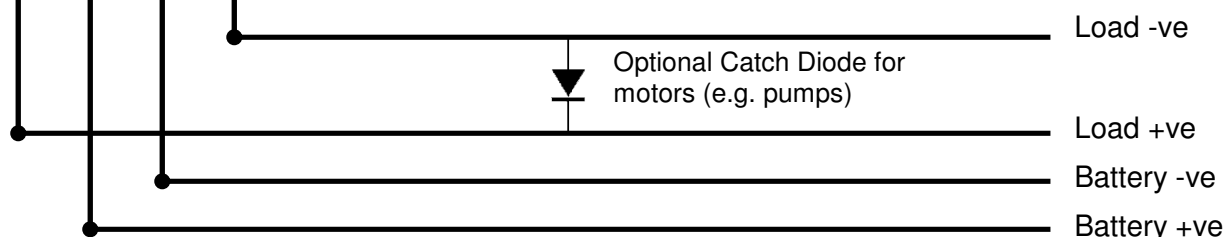
Features
- 8 on/off programs and up to 56 on/off settings for daily and weekly function.
- Digital Time Switch for 7 days – 24 hour.
- Manual button for temporary override.

Specifications

Input	24 V DC
Power Consumption	11 mA at idle, 58 mA relay energised
Backup Battery	1.2 V DC NiCad - rechargeable
Switching Relay	30 V DC max 10 A DC max (8 A inductive load)
Dimensions (mm)	66 × 88 × 42
Weight	104 g

Note: Please connect to DC power supply for at least 10 minutes, and then press the RESET button before first use.

Load -ve

Optional Catch Diode for motors (e.g. pumps)

Load +ve

Battery -ve

Battery +ve

Installation
Connect the leads to the terminals as follows (numbering of terminals - left to right as seen from the front):
1. Apply DC input to terminals 2 (Source Positive) and 3 (Source Negative).
2. Loads (output) connect positive to terminal 1 (Load Positive) and 4 (Load Negative)

Note: the position of the *catch diode* in the diagram above. This diode will protect any electronics, including the regulator (e.g. Plasmatronics PL) from any reverse transient current generated by the motor. The silver line end of the diode needs to connect to the positive connection on the motor.

If load is polarity sensitive (e.g. motor, fan, stereo, DC fluoro etc) ensure that all polarities are correct.

Programming the Timer

1. **To set time and day of the week:**
   1.1 **Set day of the week:**
   1.1.1 Press CLOCK key and WEEK key. The day of the week will be changed.
   1.1.2 Release both keys. The day of the week will be set.
   1.2 **Set Hour:**
   1.2.1 Press CLOCK key and HOUR key. The hour will be changed.
   1.2.2 Hold CLOCK and HOUR keys more than 3 seconds. The hour will shift faster.
   1.2.3 Release both keys.
   1.3 **Set Minute:**
   1.3.1 Press CLOCK key and MIN key. The minutes will be changed.
   1.3.2 Hold CLOCK and MIN keys more than 3 seconds. The minute will shift faster.
   1.3.3 Release both keys. The minute will be set.
   Notice that when the time and the day of the week are set. The seconds will be reset.

2. **To set Programs:**
   2.1 Press PROG key to enter into program mode.
   2.2 Program 1 turn-on time is ready to be set.
   2.3 Press WEEK key to select the day of the week.
   There are 15 settings for day of the week to choose from:
   (1) Mo (2) Tu (3) We (4) Th (5) Fr (6) Sa (7) Su (8) Mo to Su. (9) Mo to Fr (10) Sa+Su (11) Mo to Sa (12) Mo. We. Fr (13) Tu. Th. Sa. (14) Mo. Tu. We. (15) Th. Fr. Sa (16) Mo+We+Fr+Sa
   2.4 Press HOUR to set hour.
   2.5 Press MIN to set minute.
   2.6 After setting the program 1 ON time; press PROG key to set program 1 OFF time.
   2.7 Repeat steps 2.3 to 2.5 to set the program OFF time.
   2.8 After setting program 1 ON/OFF time, repeat steps 2.1 to 2.7 to set program 2 to 8.
   2.9 Pressing the R at any stage of the programming will reset the program, whereas the RESET key will reset the time and all programs (see 4. To reset timer - below).

3. **To select ON/Auto/OFF:**
   3.1 Press MANUAL or AUTO key to select ON/Auto/OFF modes.
   3.2 ON mode is to turn on the timer. Auto mode is to set the timer to program mode. It will turn ON/OFF according to the program time. (From ON to Auto, it will turn on the timer according to the program ON time. From OFF to Auto it will turn off the timer according to program OFF time. OFF mode is to turn off the timer.

4. **To reset the timer:**
   4.1 Press RESET key to reset the timer unit. Press R key to clear the programs without affecting the time.
   Notice: Once the RESET key is pressed. The previous time and program will be cleared to the initial state (see 2.9 above for resetting programs only).

5. **Random Function:**
   5.1 The Random function can be used to turn lights etc on and off at random times to make it appear that someone is home when in fact no-one is home. When the random function is on a thin black circle appears in the top right hand corner of the screen. It can be turned back off by pressing the WEEK key and ON / HOUR key simultaneously.

6. **Wire Connection:** Please see the wiring diagram on the back of the unit.

Note: Before first use please connect to DC power supply for at least 10 minutes and then press the recessed RESET button (e.g. use a paper clip).