

# AC/DC DYNAMICS

## UNEQUAL REPEATING AND TWO-SHOT MULTI-RANGE TIMER

### UP1/M & UP2/M

#### OVERVIEW

Congratulations! You have purchased a quality timer manufactured by AC/DC Dynamics, an ISO 9001:2000 registered company. This timer is microprocessor controlled giving you high repeat accuracy. The specific advantage of the UP1/M & UP2/M is that it replaces 2 standard timers making it an excellent choice as a timer to carry in stock. These timers are supplied for use with a standard 11 PIN base and is part of a wide range of electronic timers and relays:

UP1 - Unequal repeating      TSP 1 - Two Shot Timer

#### INSTALLATION

The UP1/M & UP2/M should be installed by a competent electrician in accordance with the relevant diagram. Please read these instructions carefully to ensure that the correct functions, link and time range have been selected and that the control voltage of the timer is correct before switching on.

#### FUNCTIONS

The function is selectable on the DIP switches.

Functions	DIP switch 5	DIP switch 6
Unequal repeating timer (Off first)	off	off
Unequal repeating timer (On first)	on	off
Two-shot timer (Off first)	off	on
Two-shot timer (On first)	on	on

**AC/DC Dynamics**  
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#### TIME RANGES

The time ranges can be changed using the DIP switches. The time is adjustable on the pots on the front of the timer.

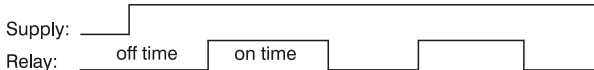
ON Time Range		DIP switch 1	DIP switch 2
No Link	Link 5-6		
0.15s to 10s	1.5s to 100s	off	off
1s to 1m	10s to 10m	on	off
10s to 10m	100s to 100m	off	on
1m to 1h	10m to 10hr	on	on

OFF Time Range		DIP switch 3	DIP switch 4
No Link	Link 5-6		
0.15s to 10s	1.5s to 100s	off	off
1s to 1m	10s to 10m	on	off
10s to 10m	100s to 100m	off	on
1m to 1h	10m to 10hr	on	on

#### UNEQUAL REPEATING TIMER (OFF FIRST)

DIP switches 5 and 6 OFF

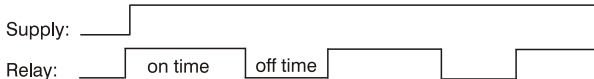
When the power is applied the relay is de-energised and the off timer starts. When the off time expires the relay energises and the LED lights. Then the on timer starts. When the on timer expires the relay de-energises and the LED goes off. This repeats until the supply is disconnected.



#### UNEQUAL REPEATING TIMER (ON FIRST)

DIP switches 5 ON : 6 OFF

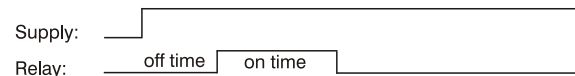
Same as above, but start with the on time period first.



#### TWO-SHOT TIMER (OFF FIRST)

DIP switches 5 OFF : 6 ON

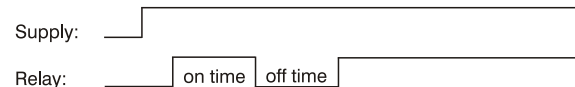
When the power is applied the relay is de-energised and the off timer starts. When the off time expires the relay energises and the LED lights. Then the on timer starts. When the on timer expires the LED goes off and the relay de-energises and stays de-energised until the supply is disconnected.



#### TWO-SHOT TIMER (ON FIRST)

DIP switches 5 ON : 6 ON

Same as above, but start with the on time period first.



#### SPECIFICATIONS

Range accuracy:	0.1%
Repeatability:	0.1%
Scale accuracy:	± 5%
Reset Time:	300mSec
Operating Temperature:	-20 to +70°C
Power consumption:	AC: 1.5VA DC: 100mA
Contact rating	DPDT: 5A 250VAC

#### CONNECTION DIAGRAM

Available voltages:

**AC:**  
Galvanic isolation with internal transformer  
12, 24, 48, 110, 230, 400 or 525VAC ±15%  
(Test volts 2KV)

**DC:**  
12, 24, 48VDC, 24-250VAC/DC

