

# UCTRONICS DC 12V Time Delay Relay Module

Model: U6031

## 1. Introduction

The DC 12V time delay relay module is designed for different control systems. It can set on delay or off delay modes with the adjustable time range from 0.1s to 1h. The delay mode and delay time can be set by shorting or opening the jumper pins and rotating the potentiometer. It can be widely used for smart home, automobile control, Arduino robotics, and other electronic projects.

## 2. Functions

S6	S7	Function	Description	Timing Chart
Open	Close	On Delay	When a power supply is connected, the timer starts delaying, the indicator light is off by default and your load hasn't been powered on. After delaying, the indicator light is on, and your load is powered on.	
Close	Open	Off Delay	When a power supply is connected, the timer starts delaying, the indicator light is on immediately and your load is powered on at the same time. After delaying, the indicator light is off, and your load is powered off.	

**Note: "Open" means "no jumper cap" while "Close" means "with jumper cap".**

1. The power supply for the relay is 12V.
2. The power supply for the relay must be connected all the time to complete its working mode. If the power supply is disconnected, the relay won't work.

### Adjustable Range of Time T with potentiometer

Mode	S1	S2	Diagram	S4	T
1	0	1		open	0.13-1.3s
2	1	0		open	0.5-5.2s
3	0	1		close	1.5-14.5s
4	0	0		open	4.4-42s
5	1	0		close	6-58s
6	1	1		open	38-340s
7	0	0		close	48-463s
8	1	1		close	389-3700s

### 3. Specification

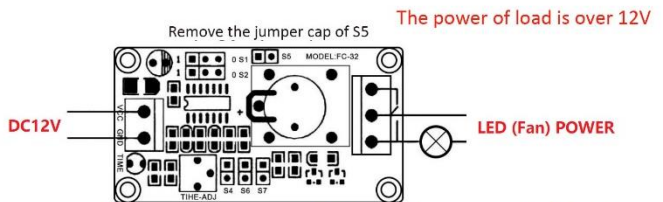
Module Size	57*30*18.5mm
Operating Voltage	12V
Quiescent Current	5.5mA
Max. Operating Current	42mA
Delay Type	Electricity delay
Max. Load Voltage	NC: DC 30V or AC 250V /NO: DC 28V or AC 125V
Max. Load Current:	10A
Relay Max. Frequency:	5KHz

### 4. Quick Start Guide

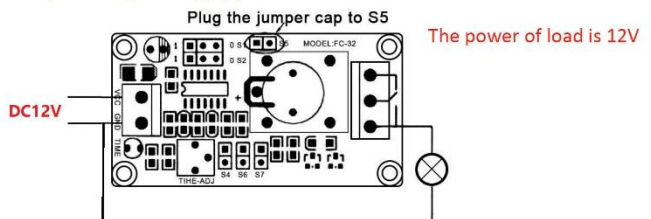
**Example 1:** Turn on a light after delaying 10s.

1. Open S6, close S7 (On delay mode)
2. Jump S1 to 1 and S2 to 0
3. Close S4
4. Adjust the delay time by potentiometer

#### Wiring Diagram



Please note: If you want to get the relay working, the supply power of 12V must be connected all the time.



### 1. Trouble Shooting

When the DC power supply on the ports where load is connected is AC current 220V or other DC current voltage higher than VCC port(12V), please remove the jumper cap S5, or the high voltage will flow inversely to module and burn down the module.

### 2. Contact us

If need any further support, please feel free to contact us.

Website: <http://www.uctronics.com>

Email: [support@uctronics.com](mailto:support@uctronics.com)