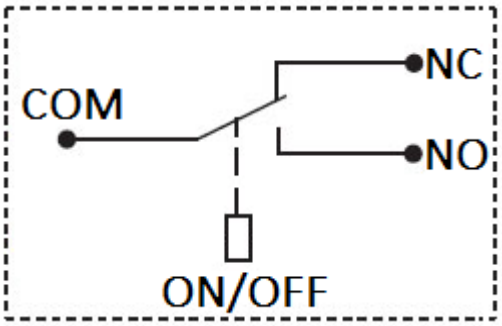
AA0378 Programming Guide

Programmable Timer

Understanding Relays

Before use, it should be understood how a relay works. If you've used relays before, you can skip this section



A relay has a "COM" port, which can be thought of as an "input" which will then go to one of the two "Normally Open" and "Normally Closed" connections. Normally means when the power is off, as it is in its resting state.
When power is applied, the relay will switch the connection from the Normally Closed **NC** position, to the Normally Open **NO** (ie: now closed).

You can try this by putting multimeter leads on the common and **NO** connections, to see when there is a continuity measurement (set the multimeter to beeper)

The AA0378 Programmable interval 12V timer module has one relay offering two connections like this, so it is a Double Pole Double Throw relay, or **DPDT**.

Link Jumper Settings

The link jumpers on this unit are used to program this unit.

Jumper Settings Table

RELAY ON PERIOD									RELAY OFF PERIOD								
Time	LK1 Jumper positions								Time	LK2 Jumper positions							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
1	√								1	√							
2		√							2		√						
3			√						3			√					
4				√					4				√				
5					√				5					√			
6						√			6						√		
7							√		7							√	
8								√	8								√
9									9								

On Time Units&Mult	LK4 & LK3 jumper positions			
	LK4 (x10)	LK3a (s)	LK3b (m)	LK3c (h)
Seconds		√		
Seconds x10	√	√		
Minutes			√	
Minutes x10	√		√	
Hours				√
Hours x10	√			√

OFF Time Units&Mult	LK6 & LK5 jumper positions			
	LK6 (x10)	LK5a (s)	LK5b (m)	LK5c (h)
Seconds		√		
Seconds x10	√	√		
Minutes			√	
Minutes x10	√		√	
Hours				√
Hours x10	√			√

Timer Operating Mode(LK7)	
	Jumper In: Continuous On/Off Timing
	Jumper Out: One Timing Period(Relay On)

You can set the jumpers to your desired position according to this handy chart, which splits into two perods; the "ON" perod where the relay is activated, and the "OFF" period.

You set the amount of time ON by selecting the correct jumper position, the unit, and the multiple, such as:

(5) (minutes) (x10)

Meaning 50 minutes.

We've provided a few examples for you to look at in case of any confusion.

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1800 022 888

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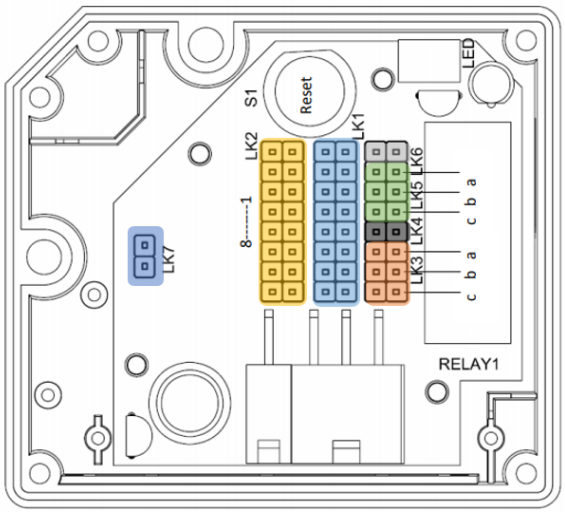
Programmable Timer

Jumper Settings Table																	
RELAY ON PERIOD									RELAY OFF PERIOD								
Time	LK1 Jumper positions								Time	LK2 Jumper positions							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
1	√								1	√							
2		√							2		√						
3			√						3			√					
4				√					4				√				
5					√				5					√			
6						√			6						√		
7							√		7							√	
8								√	8								√
9									9								

On Time Units&Mult	LK4 & LK3 jumper positions				OFF Time Units&Mult	LK6 & LK5 jumper positions			
	LK4 (x10)	LK3a (s)	LK3b (m)	LK3c (h)		LK6 (x10)	LK5a (s)	LK5b (m)	LK5c (h)
Seconds		√			Seconds		√		
Seconds x10	√	√			Seconds x10	√	√		
Minutes			√		Minutes			√	
Minutes x10	√		√		Minutes x10	√		√	
Hours				√	Hours				√
Hours x10	√			√	Hours x10	√			√

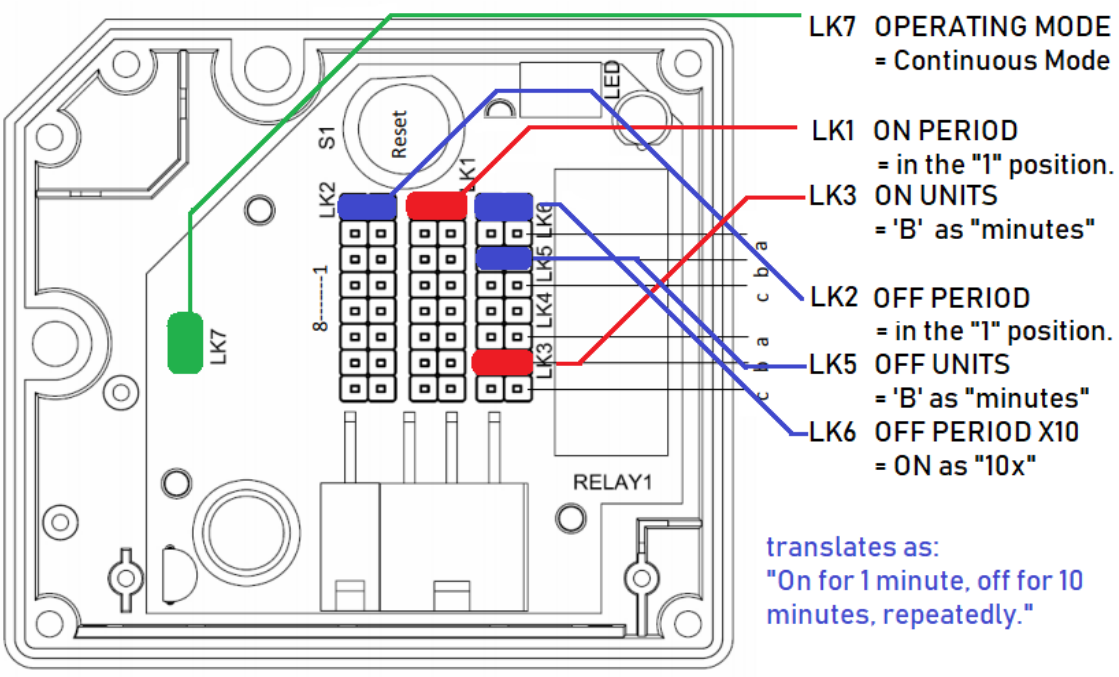
Timer Operating Mode(LK7)	Jumper In: Continuous On/Off Timing
	Jumper Out: One Timing Period(Relay On)



The linker positions are fairly easy to understand. Have a look at some examples:

Examples

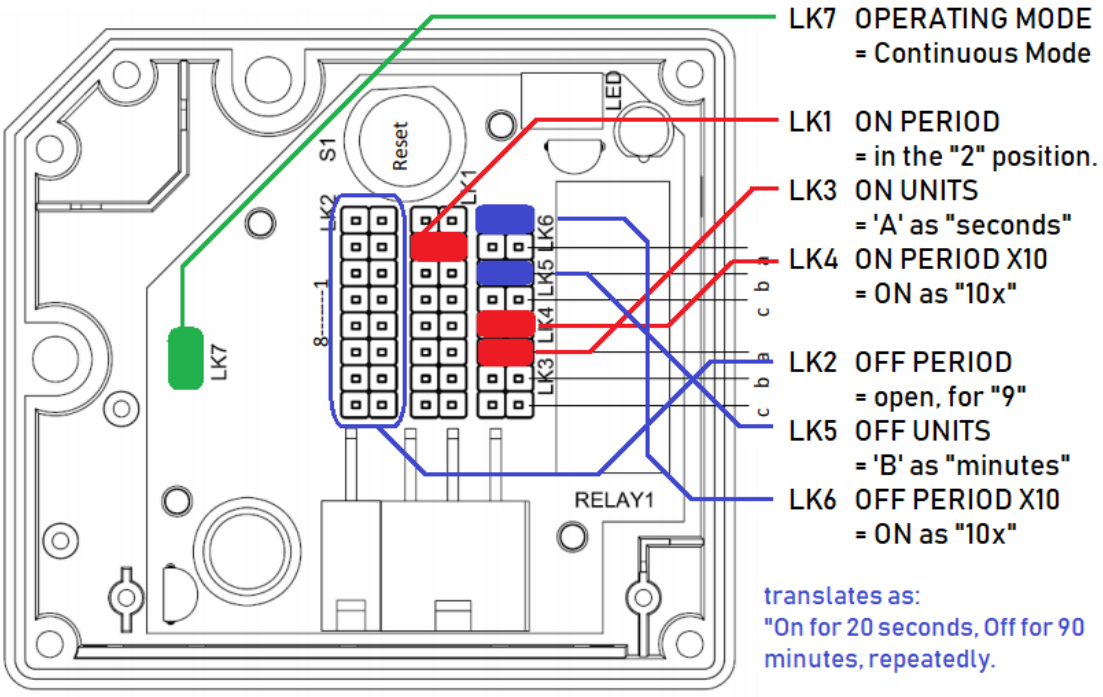
1. **On** for 1 minute, **off** for 10, in a cycle:



(Note, Link 4 is missing, as we do not want to multiply '1' by 10)

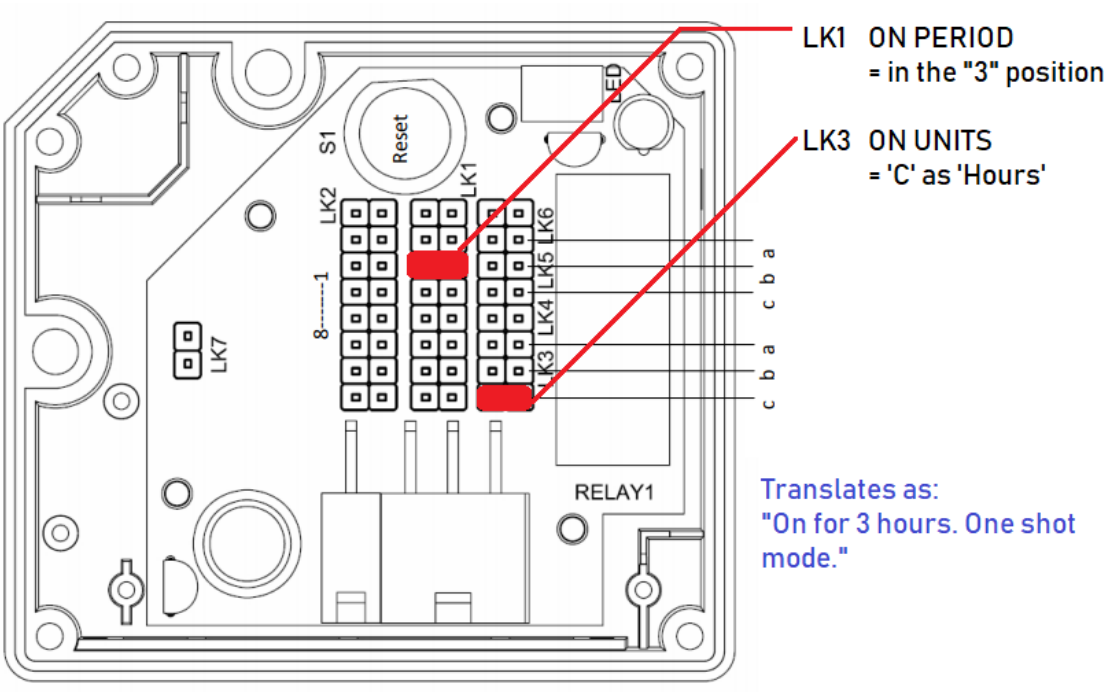
Programmable Timer

2. **On** for 20 seconds, **off** for 90 minutes, continuously



(Note: Link 2 is missing, as "9" is with "no link" as per chart above.)

3. **On** for 3 hours when **RESET** button is pressed.

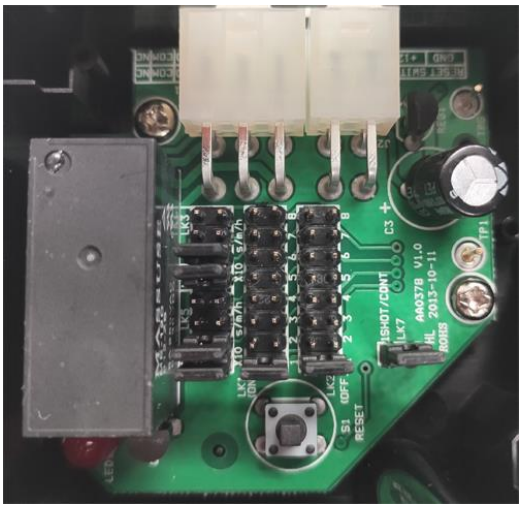


(Note: Link 7 is missing so this is configured in "one shot" mode. OFF settings have no effect, and it will not re-cycle itself. The device can be reset via the reset switch, cycling power, or by shorting the green wires from the wiring kit.)

Example	On	Off
1	10 Sec	10 Sec
2	30 Sec	30 Sec
3	1 Min	1 Min

Example 1 :

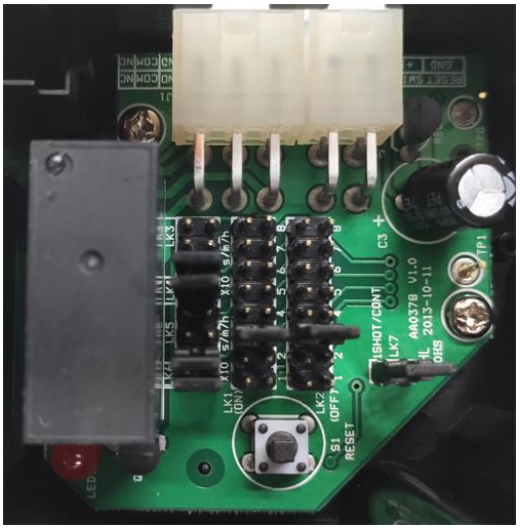
ON 10S
LK4 is set;
LK3 is set to S;
LK1 is set to 1;
OFF 10S
LK6 is set;
LK5 is set to S;
LK2 is set to 1.



Example 1

Example 2 :

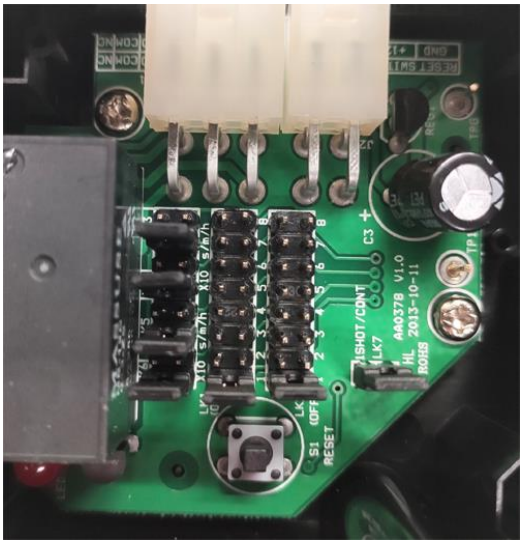
ON 30S
LK4 is set;
LK3 is set to S;
LK1 is set to 3;
OFF 30S
LK6 is set;
LK5 is set to S;
LK2 is set to 3.



Example 2

Example 3 :

ON 1 Min
LK4 is set;
LK3 is set to M;
LK1 is set to 1;
OFF 1 Min
LK6 is set;
LK5 is set to M;
LK2 is set to 1.



Example 3