



Manual
Universal Counter Module
Model 6118B



Revision History

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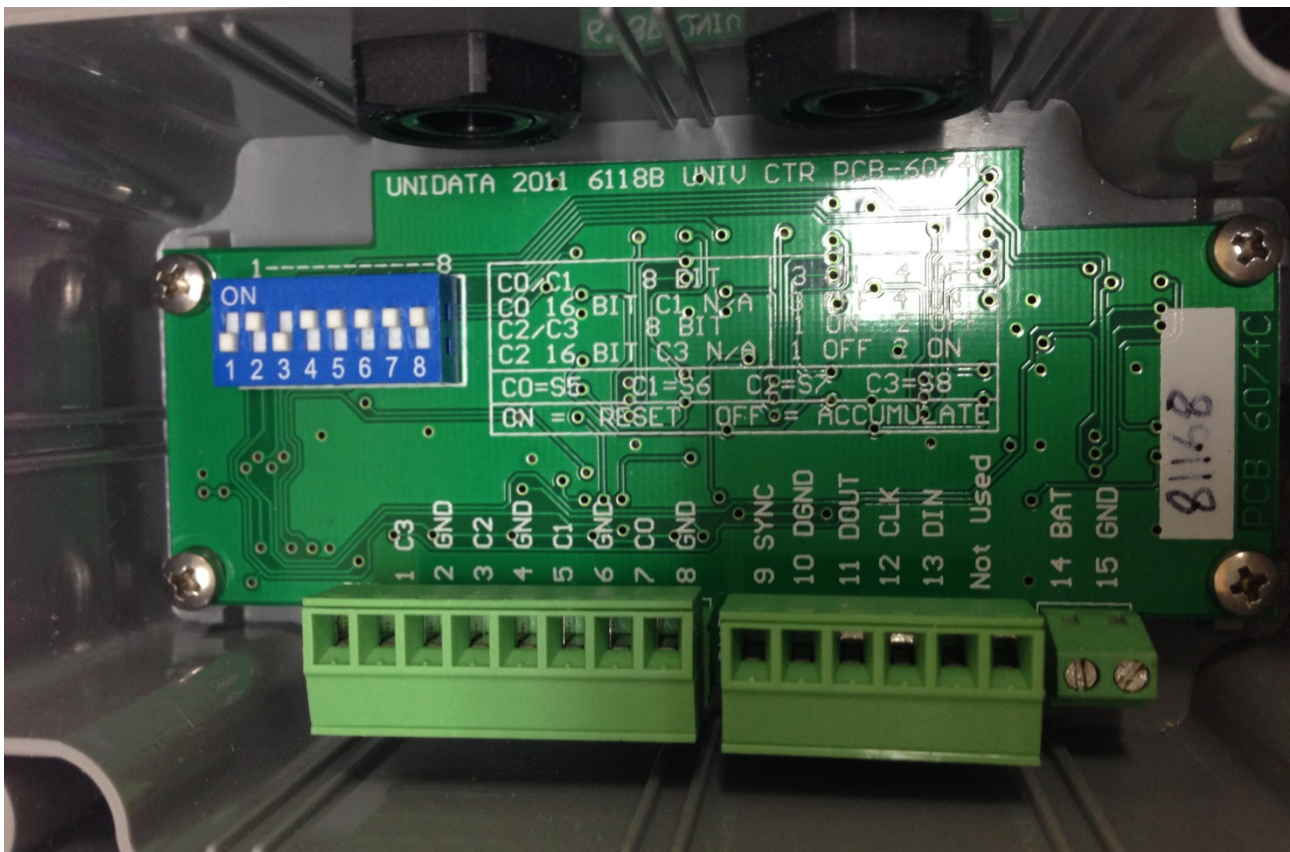
1.0 INTRODUCTION

The Universal Counter Module extends the number of counter channels of a Data Logger. The standard operation mode is set as four 8-bit counters.

Alternatively, two 16-bit counters may be configured for use with a Starlogger. Cascading of up to eight modules is possible.

This information sheet explains:

- how to configure the module for 8-bit and 16-bit counters
- how to connect the module to instruments and a logger
- which channels to use in a Starlog Scheme
- how to "daisy-chain" modules together



2.0 SETTINGS AND CONNECTIONS

2.1 Configuration Switch Settings

Function	1	2	3	4	5	6	7	8
Counters 2 and 3 = 8 bit	on	off						
Counter 2 = 16 bit Counter 3 = not available	off	on						
Counters 0 and 1 = 8 bit			on	off				
Counter 0 = 16 bit Counter 1 = not available			off	on				
Reset counter 0 each scan					on			
Accumulate counter 0					off			
Reset counter 1 each scan						on		
Accumulate counter 1						off		
Reset counter 2 each scan							on	
Accumulate counter 2							off	
Reset counter 3 each scan								on
Accumulate counter 3								off

2.2 Connections

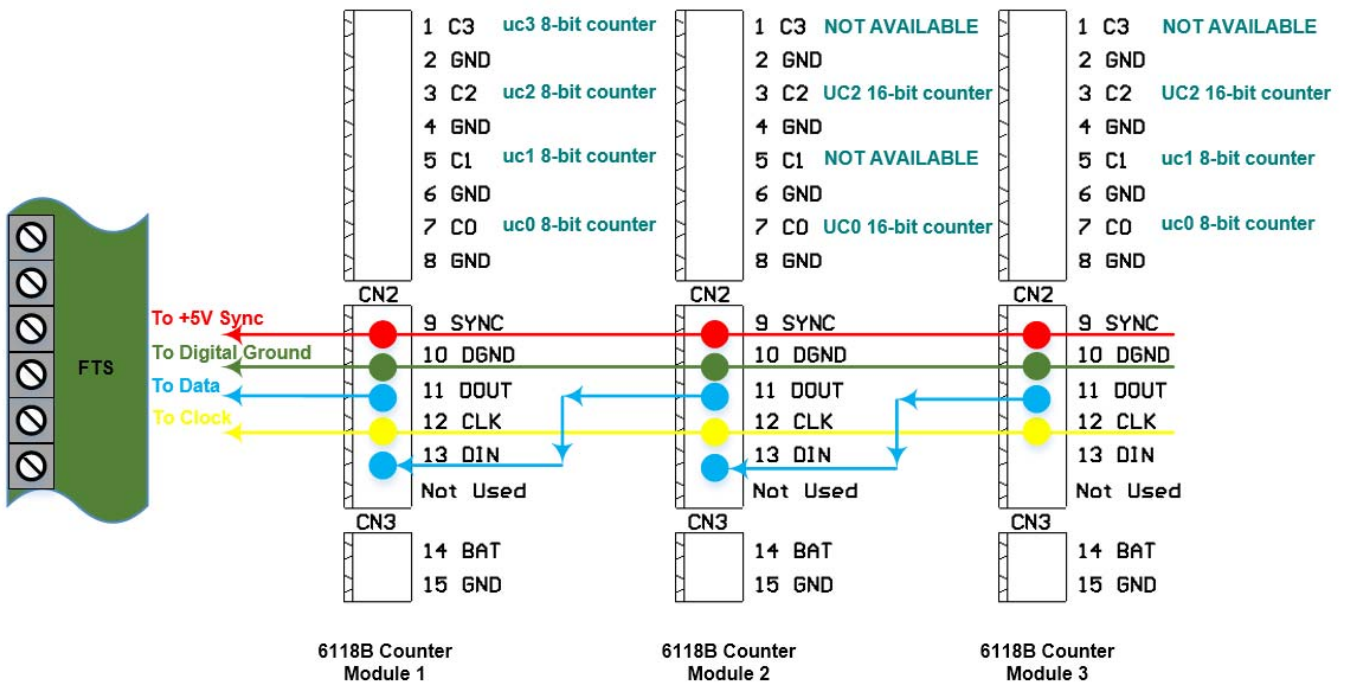
Number	Function	Starlogger FTS Terminal
1	Counter 3	Connect to your instrument
2	Counter 3 ground	
3	Counter 2	
4	Counter 2 ground	
5	Counter 1	
6	Counter 1 ground	
7	Counter 0	
8	Counter 0 ground	
9	5 Volt Sync	15
10	Digital Ground	14
11	Data Out	11
12	Clock	12
13	Data In	From other counter modules
14	Battery +ve (6 - 12V)	To external battery
15	Battery Ground	

3.0 USING COUNTERS IN A STARLOG SCHEME

Using Starlog Software, create a Scheme with the following channels:

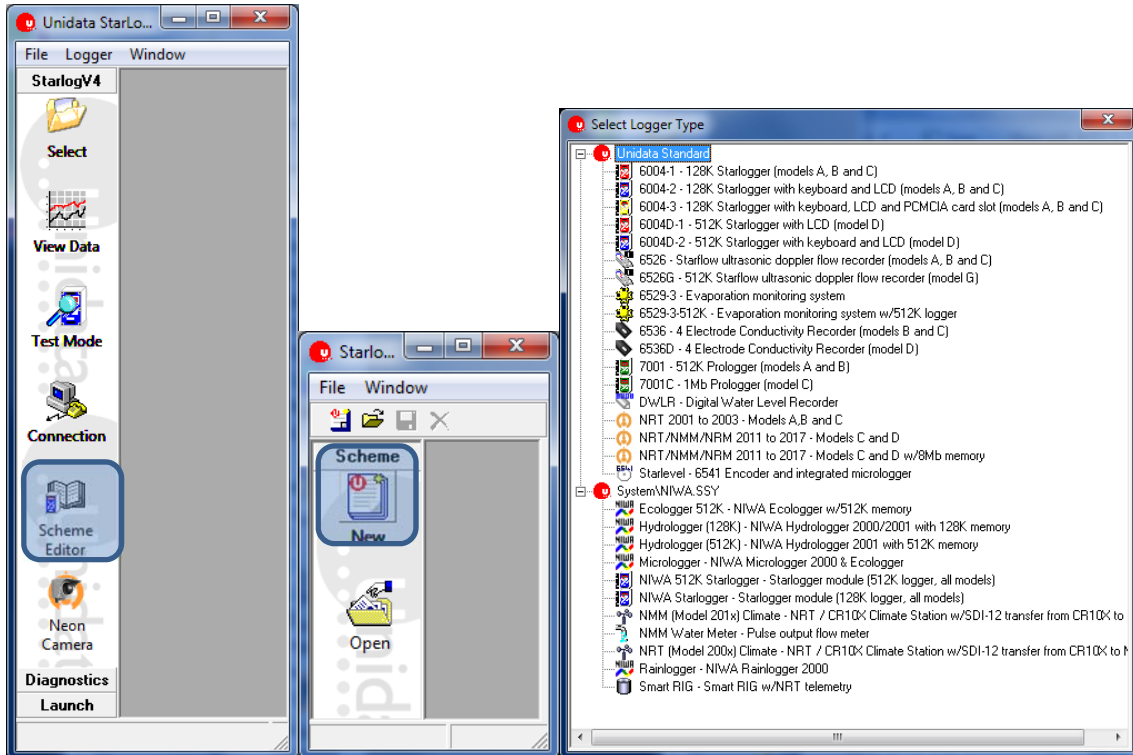
- a) a serial channel designated with a capital UC for each 16-bit counter (e.g..UC0 etc)
- b) a serial channel designated with a lowercase s for each 8-bit counter (e.g cu0 etc)

If using more than one counter channel module, counter modules may be "daisy chained" onto one serial input. This is done by connecting terminal 11 (Data Out) of the second module to terminal 13 (Data In) of the first (the one connected to the Logger). Connect each counter channel module to the logger's clock, +5 sync and digital ground.

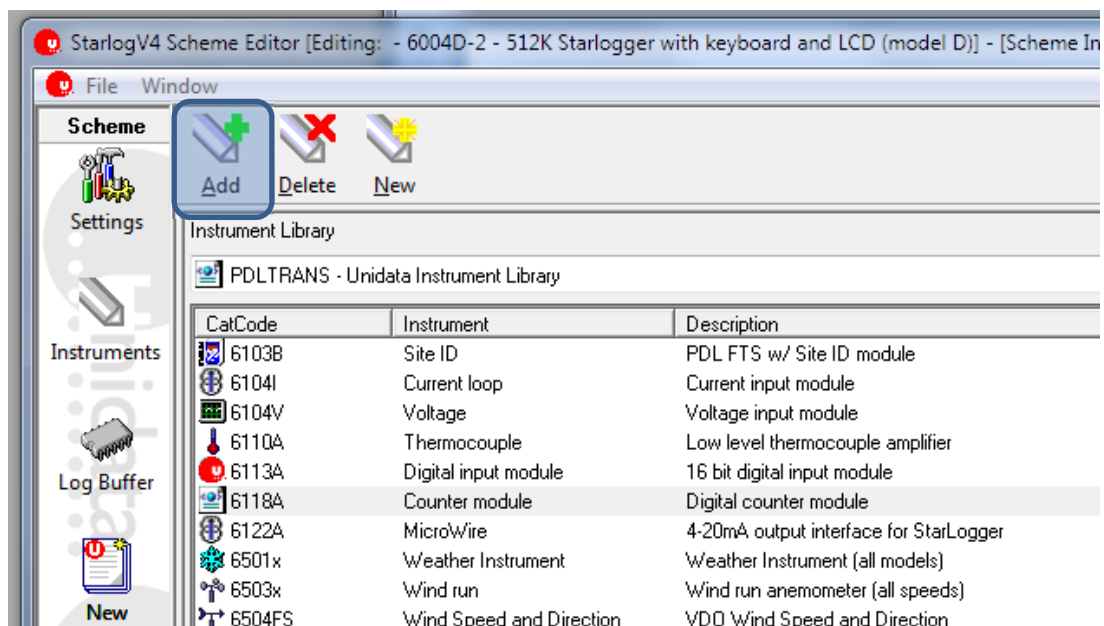


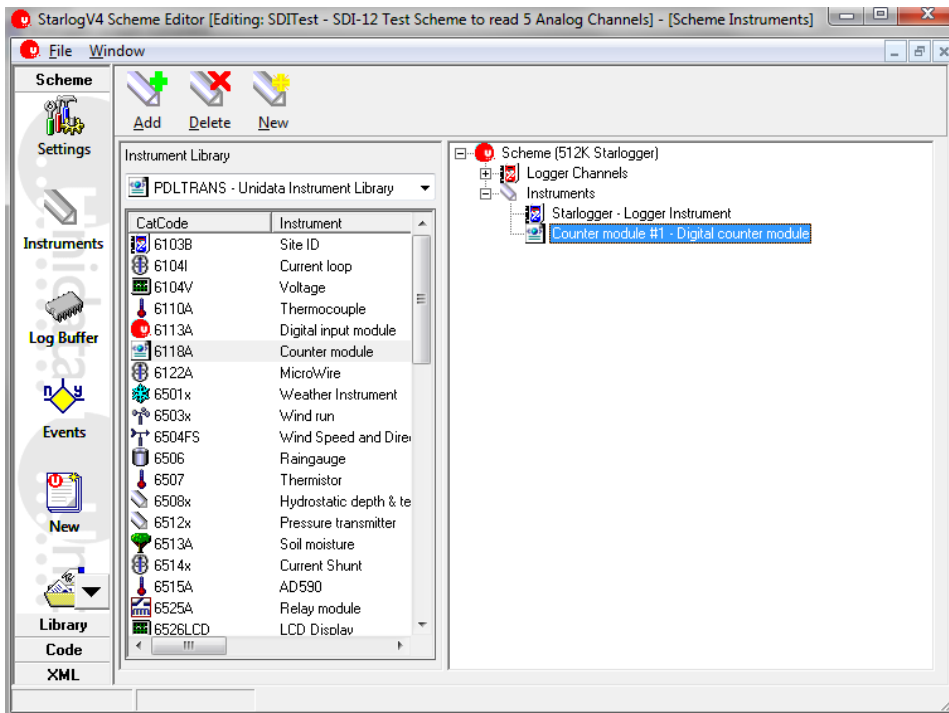
General info on how to add the option to a Scheme, using Starlog V4 software:

1. Open the **Scheme Editor**, **New** and **Select Logger Type** (6004 range)

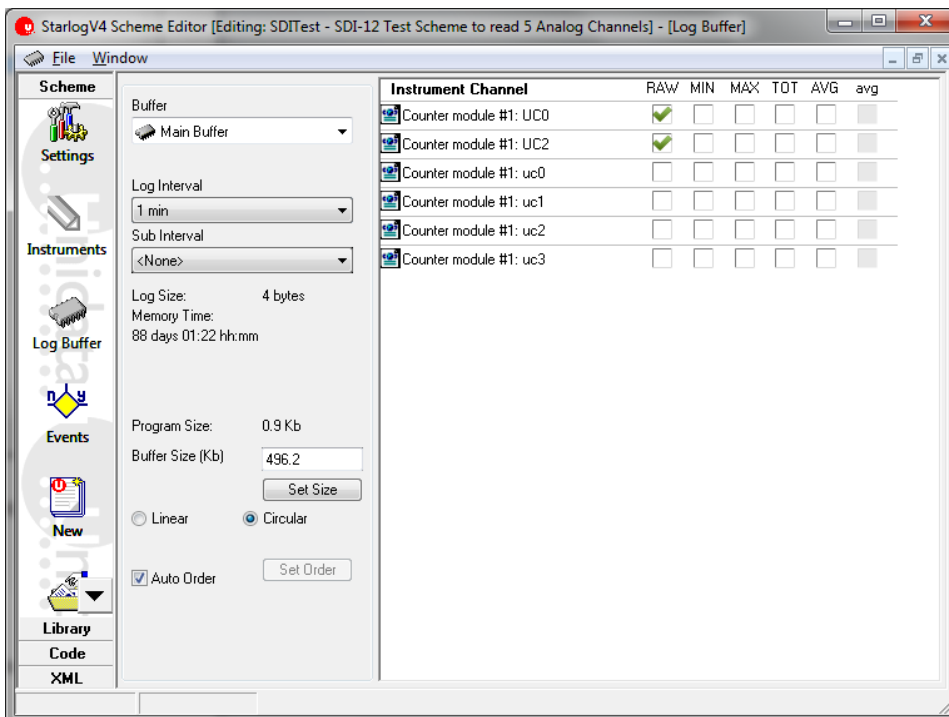


2. Select the **Instruments** menu, then **Instrument** (e.g. **6118A**) and **Add Instrument** (Note: we will add three 6118A instruments to simulate above given example)





Click on the log buffer and select either the 8 bit counter channels or the 16 bit channels which have been configured via the switch settings.



Save Scheme

4.0 SPECIFICATIONS

Input:	Suitable for potential free contacts and 5–12V DC signals up to 20 kHz
Output:	High speed serial
Enclosure:	UV stabilized polycarbonate, IP67
Size:	115mm L x 65mm W x 55mm H
Weight:	168 grams