# SP PRO Interactive Inverter Charger Technical Note



### **SP PRO Shunt Installation**

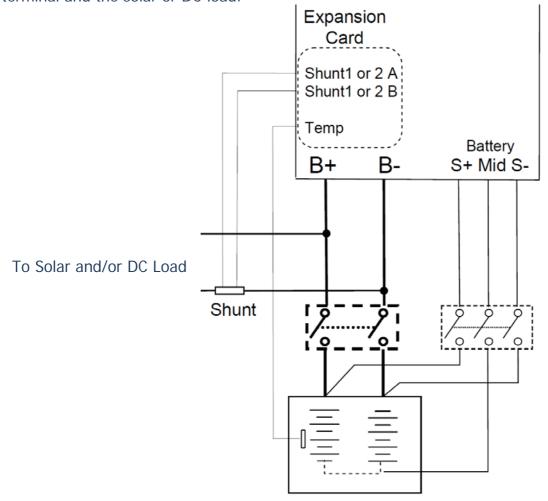
#### Introduction

The SP PRO accurately monitors current in and out of the battery bank to keep track of the batteries State of Charge (SoC). The SP PRO internally measures any current flow to and from the battery caused by itself but requires additional external current shunts to measure other connected components like solar input or DC loads. The SP PRO has two shunt sense inputs for this purpose.

#### Installation

#### **SHUNT WIRING**

External shunts **MUST** be installed on the battery negative side, between the battery negative terminal and the solar or DC load.



Note: Shunts installed in any other position will not work correctly and may cause damage to the SP PRO.

TN0045 Revision 02 – 1 of 2 POWER PERFORMANCE PASSION

## SP PRO Interactive Inverter Charger Technical Note



#### SHUNT SENSE WIRING POLARITY

Polarity is important when using the shunt in "Dual" or "Multiple SP PRO" mode – that is where the shunt is used for both input and output measurement to obtain a nett result. In this case the sense wiring **must** be as shown above – 1A or 2A terminal to the solar and load side, 1B or 2B to the battery negative side.

Note: In "Dual" or "Multiple SP PRO" mode, shunt currents are displayed with a sign; a positive (+) number means charging and a negative (-) number means discharging.

The polarity of these shunt sense leads is not important if they are configured to either "Load" or any of the input selections, such as "Solar".

### **SP PRO Configuration**

The SP PRO by default ignores any input from the shunts. Please consult the SP PRO User Manual for configuration and zeroing of the shunts.

#### **Additional Information**

Selectronic web site – <a href="http://www.selectronic.com.au">http://www.selectronic.com.au</a> or contact the Selectronic Sales Team.

