



DINGO Regulator On Grid Export Integration

Introduction

The SP PRO and DINGO regulator can be connected and configured so that the DINGO is bypassed when the SP PRO is connected to the incoming grid supply. This allows the SP PRO to solely manage the battery when grid is present and the DINGO only takes over during grid interruptions.

SP PRO Configuration

The External Regulator Bypass Output needs to be changed from None (default setting) to a spare output. There are two types of outputs - Digital Control or Relay Outputs. Either type will work however in this case the Digital Control is more suited than a relay.

This is set to give a Bypass signal to the DINGO regulator.



DINGO Regulator Configuration

The DINGO 'B+' Sense input can be set to force equalise when connected to BAT+. This will prevent the DINGO regulator from limiting solar charge current when the SP PRO is exporting

SET/PROG = 4

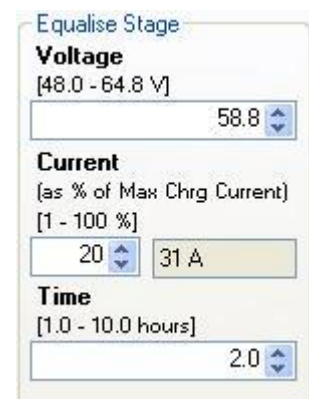
SET/MODE/BSET = 3

NOTE: If changing from generic PROG=0,1,2,or 3, you should check that all the settings under the SET/REG menu are correct for your application as these may be different from the generic (PROG=0-3) settings. See DINGO Reference manual for setting details.

Check and ensure that EMAX (V) is set to the same voltage as the Equalise voltage set in the SP PRO (default Sealed Equalise = 58.8 VDC).

SET/REG/EMAX

This is now set to accept the Bypass signal to force equalise.



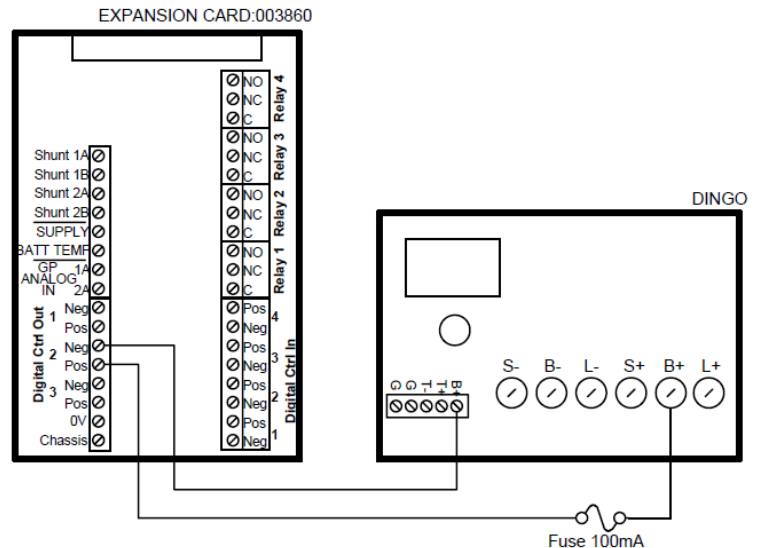
SP PRO Interactive Inverter Charger Technical Note



SP PRO and DINGO Wiring

To use the B+ Sense input, it needs to be switched through to Battery Positive. The easiest is to wire directly from B+ terminal on the DINGO regulator.

1. Connect DINGO B+ via a suitable fuse – 100mA is sufficient - into DGTL CTRL OUT 2 POS terminal on Expansion Card.
2. DGTL CTRL OUT 2 NEG connects through to the DINGO 'B+' (green terminal block) sense terminal.



Note: Digital Outputs are 'opto' isolated and reverse polarity protected.

Test Operation

With the SP PRO connected to the grid, the Regulator Bypass output will be active. In this state, the DINGO should be in the Equalise phase.

Disconnect SP PRO from grid. The DINGO should change to Absorb phase.

If this doesn't occur, check the wiring and settings in both SP PRO and DINGO.

Note: A long-push on the BATV menu will show the current charging phase.

Additional Information

SP PRO web site – <http://www.sppro.com.au>

DINGO Reference Manual see downloads section from Plasmatrix web site – <http://www.plasmatrix.com.au/>

Any questions or queries can be directed to the Selectronic Sales Team.