

SP PRO to SP LINK wireless link Installation Notes



SP PRO to SP LINK wireless link

Introduction

The SP PRO to SP LINK wireless link kit provides a simple way to wirelessly connect the SP PRO inverter to a PC or windows tablet computer giving the user full access to the SP PRO inverter via SP LINK communications software.

The kit consists of two devices which are preconfigured and paired to communicate with each other. One plugs directly into the DB9 connector at the base of the SP PRO inverter whilst the other device plugs directly into the USB port on the computer. Driver software is supplied with the kit to enable the USB port on the computer to talk to the USB wireless device.

Once SP LINK software and the driver software are installed on the computer the SP LINK software will connect to the SP PRO for a distance of up to 200m with "line of site" between the two devices.

Attention

The wireless devices used (ProBee-ZS10, ProBee-ZU10) have been Selectronic factory customised to suit the SP PRO Wireless Link. Only Selectronic factory customised devices will operate as detailed in this installation note.

Overview

The diagram shows the configuration of the wireless devices.



Device plugged
into SP PRO



Device plugged
into USB on
Computer

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System Requirements

To successfully install the SP PRO to SP LINK wireless link kit, there are particular system requirements that need to be met.

- The computer operating system must be Windows XP, Vista, Windows 7 or Windows 8. (PLEASE NOTE that Windows 8 RT is NOT suitable).
- You must have administrator rights for the computer to install SP LINK software.
- Suitable for a SP PRO Series II (revision 20 or greater).
- *Can be used with a Series I SP PRO with the addition of a "Powered Console DB9M-RJ45 lead" (Stock code 004349).*

Wireless link restrictions

The wireless link uses the same frequency band as WiFi (2.4GHz). Any obstructions between the two devices will have a significant impact on their range.

To achieve the maximum range of 200m there must be line of sight between the two devices. As a rule of thumb each obstruction that is equivalent to a stud wall will reduce the distance by about 20%. Mud brick walls, double brick or concrete walls will have a much larger impact on the range.

Any obstruction from the landscape such as levy banks, hills or undulation land will totally block the signal and the wireless link will not work.

If you have a WiFi network available then a simple check of the suitability of the SP PRO wireless link would be to place your WiFi router at the computer you wish to use to run SP LINK. Using a WiFi enabled device at the SP PRO inverter check to see if the WiFi network operates correctly. If so then there is a very good chance that the SP PRO wireless link will be trouble free.

Extending the Wireless Range

If the required distance is longer than the specified 200m clear line of site then the range of the devices can be extended by replacing the dipole antenna with a "patch" antenna. The table below gives an indication of the expected range when using a combination of dipole and patch antennas:

Local Wireless device antenna	Remote wireless device antenna	Expected distance line of sight
Dipole (supplied)	Dipole (supplied)	200m
Patch – Optional (stock code 004810)	Dipole (supplied)	300m
Patch – Optional (stock code 004810)	Patch – Optional (stock code 004810)	500m

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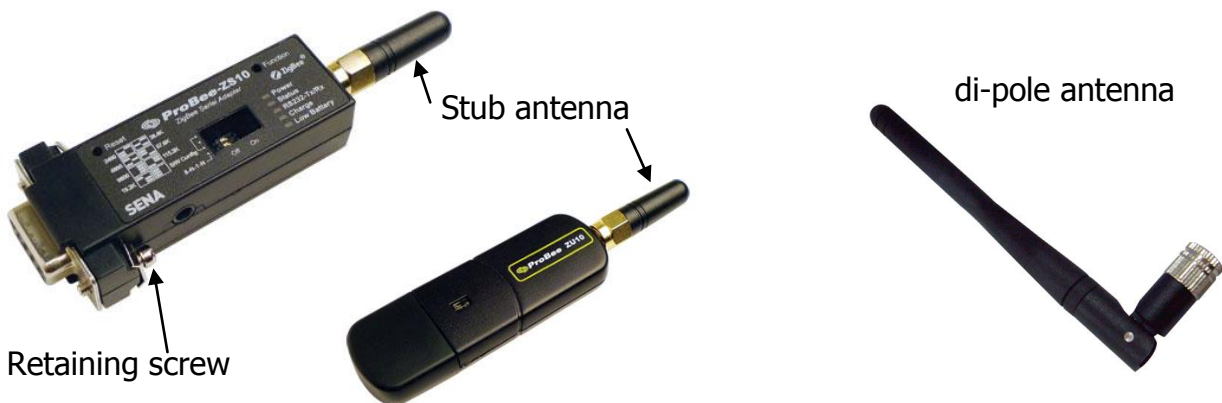


Optional Patch Antenna to extend the range of the wireless devices. Please order Selectronic Stock code 004810.

Note: Patch Antenna is directional and must be mounted in a fixed position that is directing facing the antenna of the other wireless device.

Installation

Remove the stub antennas from the end of the ProBee-ZS10 adaptor and the ProBee-ZU10 adaptor (if fitted) and replace them with the di-pole antennas provided.



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SP PRO END

1. Check that the Communication Port 1 Baud rate is 57600. This is the default setting and should be correct if it was not changed during installation of the SP PRO.

If you are not sure of the Baud rate setting then

- Connect a computer with SP LINK installed to the SP PRO inverter using the cables supplied with the SP PRO and following the instructions in the SP LINK manual (found in the "help" menu of SP LINK).
- Go to the "Configuration Setting" tab and click on "Get SP PRO's configuration" button.
- Click on the "System" tab and check the "Port 1 Baud rate".

The screenshot shows the configuration software interface for the SP PRO inverter. The 'Communication' tab is active, and the 'Port 1 Baud Rate' is set to 57600. Other settings include 'Port 2 Baud Rate' at 9600, 'Port 1 DTR/DCD' set to 'Enabled', and 'Port 2 DTR/DCD' set to 'Enabled'. The 'Power Up Output Mode' is set to 'Idle'. The interface also shows various other configuration options like 'Unit Application', 'Battery Type', 'AC Source Power', and 'SoC Control'.

2. Plug the ProBee-ZS10 adaptor into the DB9 connector at the base of the SP PRO inverter. Lightly tighten the retaining screws on the ZS10.
For a series I SP PRO, plug one end of the "Powered Console DB9M-RJ45 lead" into COM 1 on the SP PRO and the ProBee-ZS10 adaptor into the other end.
3. Turn ON the ON/OFF switch on the side of the ProBee-ZS10. The green "Power" LED will illuminate on the front panel of the ProBee-ZS10.

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COMPUTER END

1. Install SP LINK software found on the USB stick provided. (if not already installed). SP LINK must be version 6.2 or greater.
2. Plug the ProBee ZU10 into the USB port on the computer. The blue LED will light up on the ProBee ZU10.
3. Run SP LINK and create a site file following the instructions in the SP LINK manual (found in the "help" menu of SP LINK).
4. Click on "Connection Settings" under the "Site Information" tab and check that the device name "ZigBee Wireless connection" appears here.
5. Select "Connect" button to connect to the SP PRO inverter.

SP PRO Details | **Connection Settings** | Components

* Connection Type	Wireless	* ZigBee Wireless Connection	
* Login Password	Selectronic SP PRO		
Modem Phone Number			
Modem Initialisation			
Hostname or IP Address	Port	Connect	

Additional Information

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