



PLEASE NOTE THAT STRAIGHTPOINT ACCEPT NO RESPONSIBILITY FOR ANY ERRORS OR OMISSIONS WITHIN THIS MANUAL.

**SW-BS user manual**

**v1.00**  
**Part No:**  
**SU6074**

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**All products manufactured and sold by Crosby|Straightpoint Ltd, are sold with the express understanding that the purchaser and user are thoroughly familiar with the safe use, proper care and application of the product.**

Responsibility for the safe use, proper care and application of the product rests with the user.

Failure of the product can occur due to misapplication, abuse, overloading, or improper care and maintenance.

There are numerous government and industry standards that cover products manufactured and sold by Crosby|Straightpoint Ltd. This document makes no attempt to reference all of them. We do reference standards that are most current like ASME B30.26-2010 “detachable load indicating devices.”

Ratings shown in Crosby|Straightpoint Ltd literature are only applicable to new or “as new condition” products.

Rated capacities define the greatest force or load a product can carry under usual or normal environmental conditions. Shock loading and extraordinary conditions must be taken into account when selecting products and product capacity.

Some of the products in the Crosby|Straightpoint Ltd catalogues are designed for use with rigging hardware and components which could be supplied from several different manufacturers. It is crucial that you read and understand the literature from these manufacturers, as well as governmental standards and industry technical manuals.

The rated capacity, design factor and efficiency rating of each Crosby|Straightpoint Ltd product may be affected by wear, misuse, overloading, corrosion, deformation, intentional alteration, age and other use conditions.

The recommended proof load on all items manufactured and sold by Crosby|Straightpoint Ltd is twice the working load limit (WLL), unless otherwise shown. Proof testing is included on all Crosby|Straightpoint Ltd load indicating products.



# SW-BS Introduction

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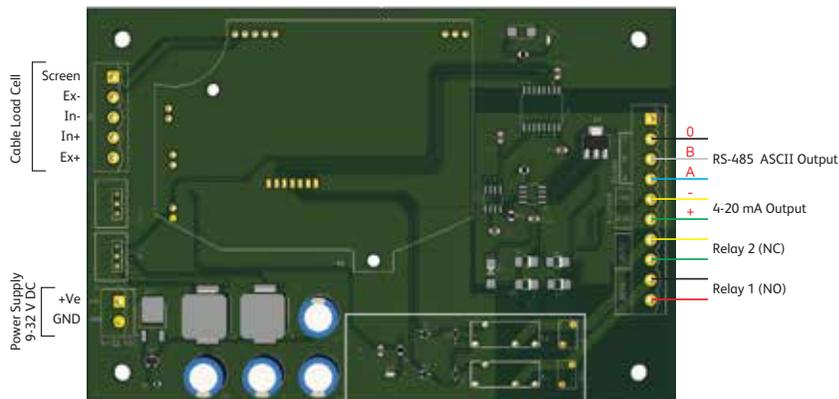


The SW-BS, Crosby|Straightpoint wireless base station offers a configurable analog 4-20mA output, dual power relays capable of mains switching and RS485 ASCII output.

Module configuration can be done using Straightpoint's proprietary configuration software – PC Config tool. This module is supplied in an IP65 sealed polycarbonate case.

**Note:** Output depends on the selection using the configuration software; the user needs to specify the required output while ordering. Site configuration is not entertained.

The user needs to connect power to the SW-BS for its operation. The required power supply is 9-32 V DC, 0.5A.



#### Analog 4-20mA, 2 Wire output:

The SW-BS provides an analog 4-20mA output for the Crosby/Straightpoint proprietary load cells. The SW-BS module can be configured to work with a single load cell or a maximum of four load cells. If the base station is connected with more than one load cell, the 20mA is based on the WLL sum of all the connected load cells.

#### Set point Relays:

The SW-BS contains two power relays capable of mains switching; relay 1 is normally open, relay 2 is normally closed, and both relays are operating on a single setpoint value. These relays can be configured as high and low, and can be associated with four load cells. If more than one load cell are paired/connected to the base station, the relays will be activated if any of the load cells are overloaded, or reach a set point amount.

#### RS-485 ASCII Output:

The SW-BS provides a serial RS-485 ASCII output as per selection for the Crosby/Straightpoint proprietary load cells. The output is suitable for connecting to a serial display or for feeding directly into a PC, PLC or any module that is capable of using numeric values readable in ASCII format. The base station can be configured to work with a single load cell or multiple load cells up to a maximum of four. If the base station is paired with more than one load cell then the serial output will contain the WLL sum of all the connected load cells.

- The RS-485 output is a 2-wire interface uses A, B and ground (0) to connect with PLC, display etc.
- Working baud rate will be 9600.
- The RS485 output consists of 8 ASCII characters and a carriage return character (13).
- Messages are sent out at approximately 0.5 second intervals.

#### Messages available in the output format as below:

1. **OVERLD** If any one of the connected load cells are overloaded, the user will see an OVERLD message.
2. **NO RF** If any one of the connected load cells are not within available range, the user will see a NO RF message.
3. **LC ERR** If any one of the connected load cells ADC count goes above its maximum limit, the user will see an LC ERR message. (Normally this is considered as gauge failure or any other failure related to the load cell.)

Note: The user needs to specify the required load unit while ordering, in order to set the unit in the board of the base station. Unit change from site is not possible.

Specifications				
Parameter	Minimum	Typical	Maximum	Unit
External Power Supply	9	24	32	V DC
Operating Current	-	500	-	mA
Operating Temperature	-10/14	-	50/122	°C/F
Wireless Range	-	800/2625	-	m/ft
Number of Wireless Load Cells	1	-	4	-
4-20mA				
Output	-	2-Wire	-	-
Resolution	-	12	-	Bit
Load Impedance	-	250	500	Ohm
Non-Linearity	-	±0.02	-	%
Relay				
Number of Relays	-	2	-	-
Relay – AC Rating	-	240	-	V AC
Relay – DC Rating	-	30	-	V DC
Relay – Current	-	5	-	A
RS485				
Type	ASCII			-
Enclosure				
Physical Dimension	180 x 120 x 60.5 / 7.08 x 4.72 x 2.38			mm/in
IP Rating	IP65 / NEMA4X			-

## Product aftercare

While these devices are sealed to IP65 / NEMA4X standards, they should not be immersed in water. The effects of solvent on the device can not be guaranteed, and should therefore be avoided.

Avoid use within 20-30 minutes of rapid changes in temperature, for example moving the device from a cold vehicle into a warm room. The change in temperature can affect the accuracy of the device. The operating temperature is -10°C to +50°C or 14°F to 122°F.

Should the display show "OVERLOAD" remove the load immediately as this indicates an overload situation. Check that the load applied is within the working load limit of the device. If it continues to display overload, contact your supplier.

## Service and calibration

These products are supplied with a certificate of calibration which is valid for one year. After this date, it is recommended the device is recalibrated by Straightpoint or an approved calibration laboratory. Contact the Crosby|Straightpoint service department or your supplier for more information.

In the unlikely event of this device failing, fit new batteries and re-test. Only when this has been done should you contact your supplier to report the fault. When reporting the fault it is important to give a full description of the problem and the type of application the device is being used for.

## Warranty

Crosby|Straightpoint (UK) Ltd warranty this product against malfunction for a period of two years from manufacture.

Conditions of warranty:

- 1) The equipment is used as described exactly in the operators manual supplied.
- 2) Whilst we make every effort to ensure each device is calibrated before despatch, Crosby|Straightpoint (UK) Ltd do not accept responsibility for inaccurate readings indicated by this equipment.
- 3) In the event of malfunction, the device is returned to the manufacturer:  
Crosby|Straightpoint (UK) Ltd, Unit 9 Dakota Park, Havant, Hampshire, UK, PO9 2NJ.
- 4) If we consider any malfunction to be caused by misuse, this warranty is void and any repair will be charged for accordingly.



# Terms and conditions

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