12-86-9000
POCSAG Callpoint
Paging Transmitter

PRODUCT INFORMATION

SEA AIR & LAND COMMUNICATIONS LTD, CHRISTCHURCH, NEW ZEALAND

12-86-9000 POCSAG Callpoint Paging Transmitter

GENERAL

The 12-86-9000 is a small, low cost, high specification Paging transmitter integrating the Salcom 12-86-5000 Paging Transmitter PCB and inherits all 12-86-5000 type approvals.

The 12-86 range of products are POCSAG direct to pager transmitters, allowing low cost systems to be developed since intermediate receivers and transmitters are not required for short range applications.

12-86 transmitters support up to 5 inputs, each of which can be programmed with up to a 35 character message. Programming can either with a serial programming cable that can be purchased separately or preprogrammed when supplied.

Although the 12-86 is a low power transmitter, when used as a callpoint paging transmitter a direct line of sight range of up to 800 metres can be expected. When used within buildings the range will be reduced depending on the building, but still will be significant.

The 12-86-9000 fits the form factor of many standard electrical face plates, so that the transmitter can remain in keeping with surrounding switchgear in cosmetically sensitive areas. By default the 12-86-9000 is supplied with a mounting block, but can be flush mounted in the same manner as most electrical switch plates if required.

The 12-86-9000 is available in 2 sizes, and is also available in black. By default the 12-86-9000 is supplied in white as the smaller variant.

OPERATION

Pressing the button will result in the red transmit LED illuminating, and the preprogrammed POCSAG message being transmitted. The red transmit LED can also be used as an indication of battery health, and should the LED be dim or fail to light, the CR2032 button cell should be replaced.

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PROGRAMMING

In order to program the12-86-5000, programming software should be downloaded from the Salcom website (www.salcom.co.nz).

A Salcom 12-47 programming lead is required to program the 12-86 transmitters (the same lead used to program the 11-85 transmitters). This may be purchased separately. The 12-47 programming lead requires the availability of a PC with a serial port, running windows XP.

Connect the 12-47 as shown below, with the dot (circled in yellow) on the 12-47 socket towards the centre of the PCB (mating with the square pad).

The 12-86 Programming Software allows the transmitter frequency and button messages to be set.

1 Press “Connect”. The red LED will light, as a message is transmitted. After the message has been sent, the green LED above the 4th button will light for approximately 1 second. The status at the bottom of the 12-86 PSD will indicate if successfully connected.
2 Press “Read”. The current configuration is read from the 12-86-5000.
3 Make any required changes.
4 Press the “Program” button.
5 Press “Disconnect”, then remove programming lead.

General Configuration

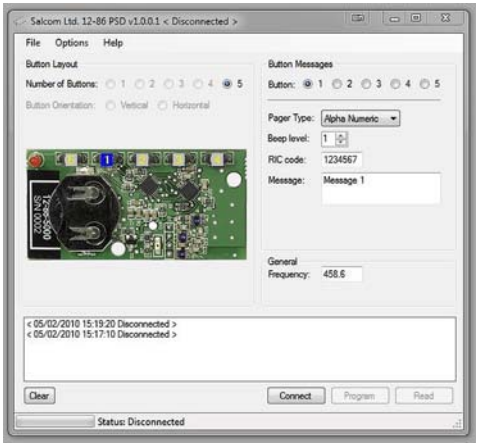
Button Messages: Select the button to view the message, RIC and beep level assigned to that button. New button settings can be entered, but will not be written until the program button is pressed. The program button only needs to be pressed after all button details have been populated.

Frequency: The transmit frequency between 440 and 470MHz to be set, 25kHz channel spacing.

Pager Type: If set to “alphanumeric”, then any message can be set into the message box, and can only be used with pagers that support alphanumeric messages. When “numeric” is set then only 0,1,2,3,4,5,6,7,8,9,0,[,],-,E and U characters can be used. Tone only pagers are supported by leaving the message box empty.

Beep Level: Pager beep priority set - 1 highest, 4 lowest.

RIC Code: Pager ID. Valid codes are 0000008 to 2000000



SPECIFICATION

RF Frequency	UHF: 440-470MHz Synthesized.
Dimensions.	Default size: 103mm x 50mm x 42mm or in larger size on request 117mm x 74mm x 37mm.
Supply Voltage	3 volt CR2032 button cell, or larger battery pack by negotiation.
Power Consumption	Sleep:100nA Transmit: 45mA
CR2032 Battery Life	Approx 1000 transmissions. Approx 10 years standby.
Temperature limits	-10 to +55deg, -30 to +60 on request.
Environmental protection	Requires protection from weather, is not waterproof.
Channel Spacing	25kHz
Output Power	Approx 10dBm
Modulation	Carrier FSK with NRZ data
Deviation	+/-4.5kHz
Transmit Duty Cycle	Up to 20%, 30 seconds continuous
Baud Rate	512 Baud
Available Colours	White (default) or Black
Type Approvals	AS/NZS 4769.1:2000 and EN 300 224-2. Tested to and meets FCC Part 90.

BATTERY REPLACEMENT

Care must be taken when replacing the CR2032 coin cell. The battery must be fitted with the '+' up and the '-' touching the PCB. Incorrect battery installation will rapidly discharge the coin cell, and may damage the transmitter.

After battery replacement, test that the 12-86 is functional by sending a test message and verifying the red LED lights. If the unit fails to operate, remove battery, confirm correct battery orientation and reinsert.

WARRANTY

Our Products are warranted for a period of 12 months from date of purchase against faulty materials and workmanship.

Should any fault occur the unit should be returned to the vendor, freight pre-paid. Please include a description of the fault to assist with prompt return.

Any unauthorized alterations or repairs will invalidate the warranty.

DISCLAIMER

All information provided in this document is carefully prepared and offered in good faith as a guide in the installation, use and servicing of our products. Installers must ensure that the final installation operates satisfactorily within the relevant regulatory requirements. We accept no responsibility for incorrect installation.

We reserve the right to change products, specifications, and installation data at any time, without notice.

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