The world's leading away from home skin care system company
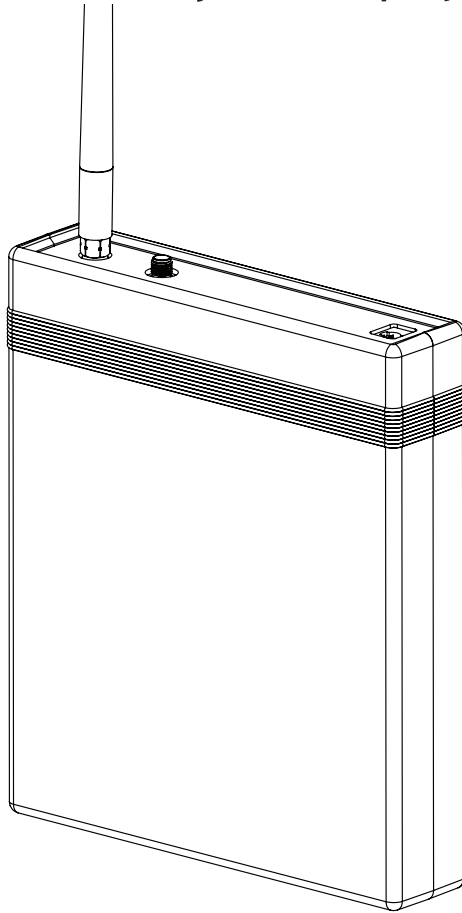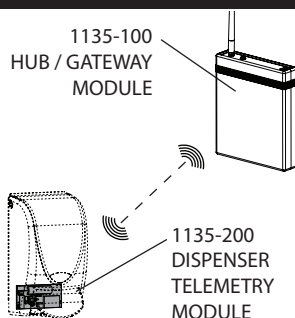

1135-100
HUB MODE & GATEWAY MODE
INSTALLATION & OPERATION GUIDE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation

INTRODUCTION

The Deb Dispenser monitoring system is intended to provide remote monitoring of soap dispenser activations. Within the system the modules in Hub mode function as rebroadcasters, while those in Gateway mode relay the data messages to a server using either a USB cable or a modem. The system operates using the license free (ISM) bands.

1135-100
HUB / GATEWAY
MODULE

1135-200
DISPENSER
TELEMETRY
MODULE

FEATURES

- 906 MHz Single Channel Radio
- Reverse SMA external antenna
- 8 hour battery back-up
- Crystal controlled real time clock
- 5 LED status indicators

- USB connection for data output and diagnostics
- RS232 connection for optional external GPRS modem (not included)
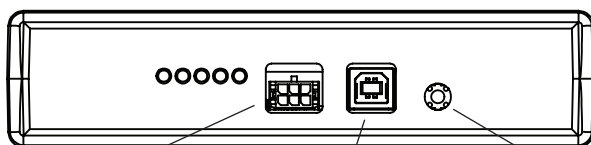- Storage for approx. 600 messages

CONNECTIONS

Rear View

DC Power input
(Use Supplied power adaptor only)

SMA Antenna connector
EU only

SMA Antenna connector
USA/CA only

Front View

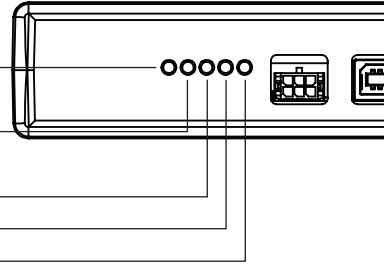6 Way Microfit connector programming & expansion header

USB B connector for diagnostics/debug output on Hub & Gateway. Also for Gateway data message output.

System reset

LED INDICATORS

Front View

1. Power On / Device active - Flashes to show unit is working.
2. Gateway mode: GPRS connected. Hub mode: Valid Route.
3. Connection to server - Gateway only.
4. Messages stored in device memory.
5. Messages currently being received via low power radio.

BATTERY BACK-UP

The Hub / Gateway module includes a battery back-up system capable of maintaining basic message handling functions for approximately 8 hours (at typical usage rates) should the system lose power.

The battery back-up system is only enabled when the power adaptor is connected to the module.

FCC INSTALLATION CONDITIONS

The 1135-100 must operate with a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

The 1135-100 is only certified for use with antenna type Mobile Mark PSKN3-925RS antenna (supplied), max gain 2.3 dBi.
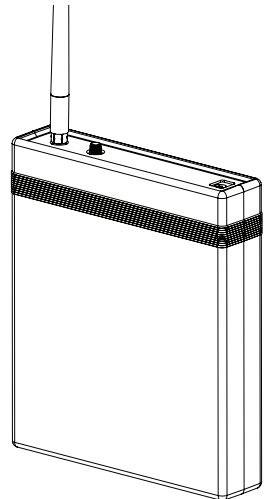
GATEWAY MODE

When the module is configured in Gateway mode the device must be connected to either a computer via the USB B interface or optionally to an approved external GPRS modem via a custom cable and the microfit connector.

The Gateway module should be positioned according to the site survey to provide suitable radio coverage and if using the optional external GPRS modem also ensuring that the GPRS signal coverage is adequate for a reliable connection.

When using the optional GPRS modem it should be installed in accordance with the manufacturers instructions.

The Gateway requires a connection to DEB's custom API server platform, either on the locally connected computer or via GPRS, to obtain the correct time / date and to off-load messages.

If connection to the API server is lost, the gateway is capable of storing approximately 670 messages. Once the message store is full the gateway will stop receiving messages.
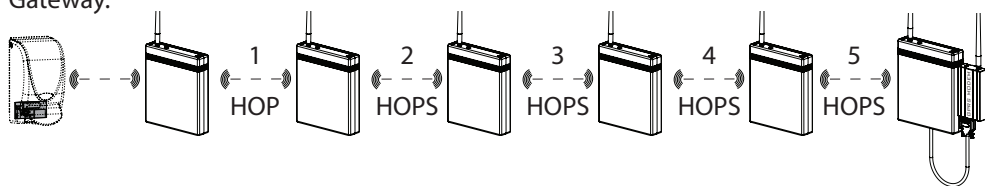
STANDARD OPERATION

When the module is configured in Hub mode the device acts as a simple rebroadcaster, in that it receives messages from the dispenser modules over the predetermined wireless channel and then rebroadcasts them over that same wireless channel to be received by either another hub or the gateway module.

When in Hub mode the device needs to be able to connect either directly to a Gateway or via another Hub that has already established a valid route to a Gateway, this ensures that the rebroadcast data can be successfully pushed through and out of the system.

The Hub module should be positioned according to the site survey to provide suitable radio coverage, with consideration given to minimising the number of overlapping Hub coverage zones.

Hubs are limited to a maximum of 5 rebroadcast 'hops' to the Gateway, as shown in the diagram below. There are no restrictions on the number of Hubs connected to the Gateway.

| 1 HOP | 2 HOPS | 3 HOPS | 4 HOPS | 5 HOPS |

Hubs rebroadcast stored messages on through the system after a predetermined period of radio silence or when the message buffer is full. (Approximately 600 messages)
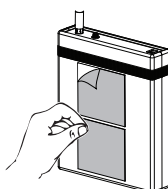
INSTALLATION RECOMMENDATIONS

The Hub and Gateway modules should preferably be installed in locations that are secure and not accessible by the general public. Ideal locations include maintenance closets, electrical closets and data / communication rooms.

In all installs it is preferable for the module to be mounted as close to the ceiling as possible, keeping potential physical contact and tampering to a minimum.

Use the alcohol wipe provided to clean and prepare both the wall and hub/gateway module. Leave to dry for 5 minutes.

Apply 2 adhesive pads to the rear of the hub/gateway module.
Using firm pressure mount the module to the wall.

CONTACT DETAILS

For all product enquiries please contact your local DEB company.
Full contact details can be found at:

www.debgroup.com

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skin care system company