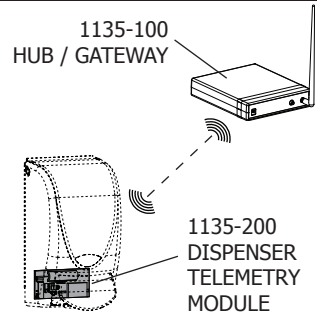# 1135-200
DISPENSER TELEMETRY MODULE
INSTALLATION & OPERATION GUIDE

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
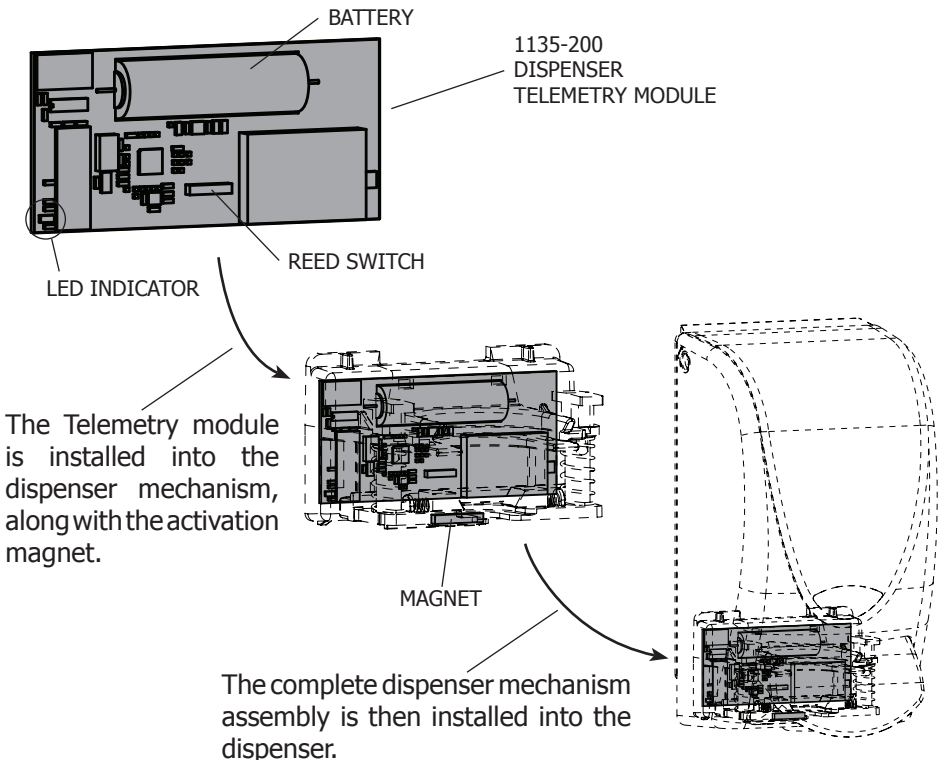
INTRODUCTION

The Deb Dispenser monitoring system is intended to provide remote monitoring of soap dispenser activations. The dispenser telemetry modules are intended for use as part of a larger system comprised of Hubs and Gateways (1135-100) along with a server. The system operates using the license free (ISM) bands.

1135-100
HUB / GATEWAY
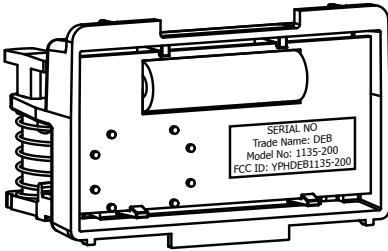
1135-200
DISPENSER
TELEMETRY
MODULE

FEATURES

- 906 MHz Single Channel Radio
- 250kbps QPSK
- Integral PCB Antenna(-10dBi gain)
- Duty Cycle 0.00025%
- Reed Switch Activation
- 5 Year Battery Life (100 activations per day)
- Crystal Controlled Real Time Clock

TELEMETRY MODULE INSTALLATION

BATTERY

1135-200
DISPENSER
TELEMETRY MODULE

REED SWITCH

LED INDICATOR

The Telemetry module is installed into the dispenser mechanism, along with the activation magnet.

MAGNET

The complete dispenser mechanism assembly is then installed into the dispenser.

FCC LABELLING

SERIAL NO
Trade Name: DEB
Model No: 1135-200
FCC ID: YPHDEB1135-200
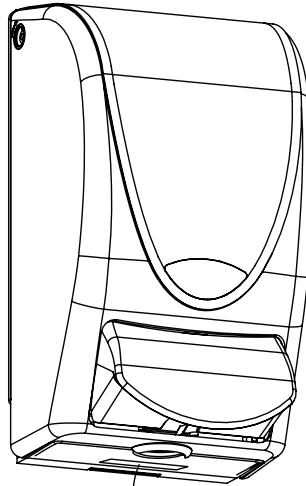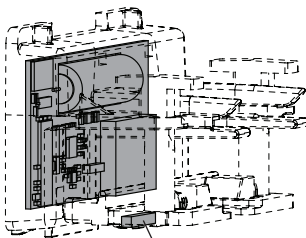
Prior to installation into the dispenser housing the Telemetry modules FCC approval label is visible on the back of the mechanics assembly.

As this label is not visible when the mechanics assembly is installed into the dispenser housing a second label is attached to the underside of the unit.
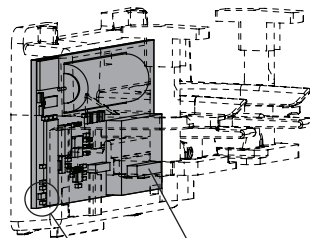
CONTAINS FCC ID: YPHDEB1135-200

INSTALLATION MODE

MAGNET POSITION
AT REST

LED

MAGNET POSITION
ACTIVATED

To aid installation a Light Emitting Diode (LED) is provided. To activate installation mode hold the mechanism in the activated position, as shown above, for approximately 5 seconds. Provided a working Gateway/Hub is in radio range the LED will flash slowly 5 times.
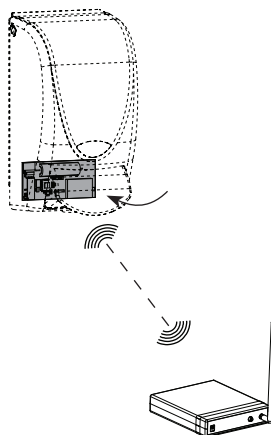
Once installation mode has been activated the LED will flash briefly whenever a successful activation occurs. Installation mode is valid for 9 activations after which normal operation resumes.

NOTE: During installation mode the normal 2.5 second activation window is not enabled and each individual dispense is treated as an activation.

STANDARD OPERATION

During normal operation the dispenser is in a low power standby mode and is "woken" by an activation. This triggers a 2.5 second window during which subsequent activations are accumulated into a single event. The event is then time stamped in UTC format and transmitted to the nearest Gateway or Hub. Upon successful transmission the message is deleted and the unit returns to the low power standby mode.

Messages that are failed to be acknowledged are stored and the dispenser attempts to retransmit the message(s) either on the next successful transmission or after 5 minutes. A maximum of 50 messages are stored. On retry the dispenser will enter broadcast mode in an attempt to locate a Gateway or Hub with a more reliable radio link.

STATE OF CHARGE MESSAGE

A daily state of charge message is transmitted that includes the calculated battery level provided there are no failed messages waiting to be transmitted. The time of day is randomised based on the address of the dispenser. During the transmission of the state of charge message the dispenser enters a broadcast mode to re-acquire the time and validates that it is connected to the Gateway or Hub with the highest signal strength.

CONTACT DETAILS

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

www.debgroup.com

deb

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