

REFCON Portable Modem

User Manual

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1 DECLARATION OF CONFORMITY

Environmental Specifications, markings and certifications	
CE	EMC Directive 2014/30/EC Low Voltage Directive 2014/35/EC RED Directive 2014/53/EC RoHS Directive 2011/65/EC WEE Directive 2002/96/EC
FCC ID	2ARHAC00001

1.1 FCC Rules

This device complies with Part 15 of the FCC Rule. Operation is subject to the following two conditions:

1. This device may not cause harmful interference
2. This device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Consult the dealer or an experienced radio/TV technician for help.

WARNING!

FCC Radiation Exposure Statement:

This device complies with FCC's and IC's RF radiation exposure limits set forth for an uncontrolled environment under the following conditions:

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1.2 Safety Warnings



Caution contains Static Sensitive Device

2 REFCON PORTABLE MODEM

Description:

The REFCON Portable Modem is a simple solution to solve a complex problem in the refrigerated container industry. Visibility is key to ensuring the wellbeing of the refrigerated containers and its cargo but on vessels or terminals today this visibility at best limited, leading to undiscovered alarms, incorrect setpoints etc. which is driving the need for a nonoptimal time-consuming manual process for monitoring the refrigerated containers to ensure the safety of the cargo.

The REFCON Portable Modem connects easily to any refrigerated container in the market today directly to the log retrieval plug or with an extension cable depending on the application from here all data is wirelessly sent to REFCON where the data and alarms can be processed by the crew. The REFCON Portable Modem can also be used in an application where infrastructure is unavailable which could be on short-term charter vessels or on peak season storage areas on terminals in these cases the REFCON Mobile app can be used together with an Android device by the crew to fast and automatically collect data and alarms for a flexible monitoring solution.

At Emerson data security is always a top priority and the REFCON Portable Modem solution is no exception, which is one of the reasons why we chose the newest Bluetooth Low Energy 5.0 as the wireless interface given its high-security standards and to ensure the highest data security the Portable Modem is also equipped with unique burned in X509 keys for additional protection against external threats.



3 VERIFICATION OF REFCON PORTABLE MODEM

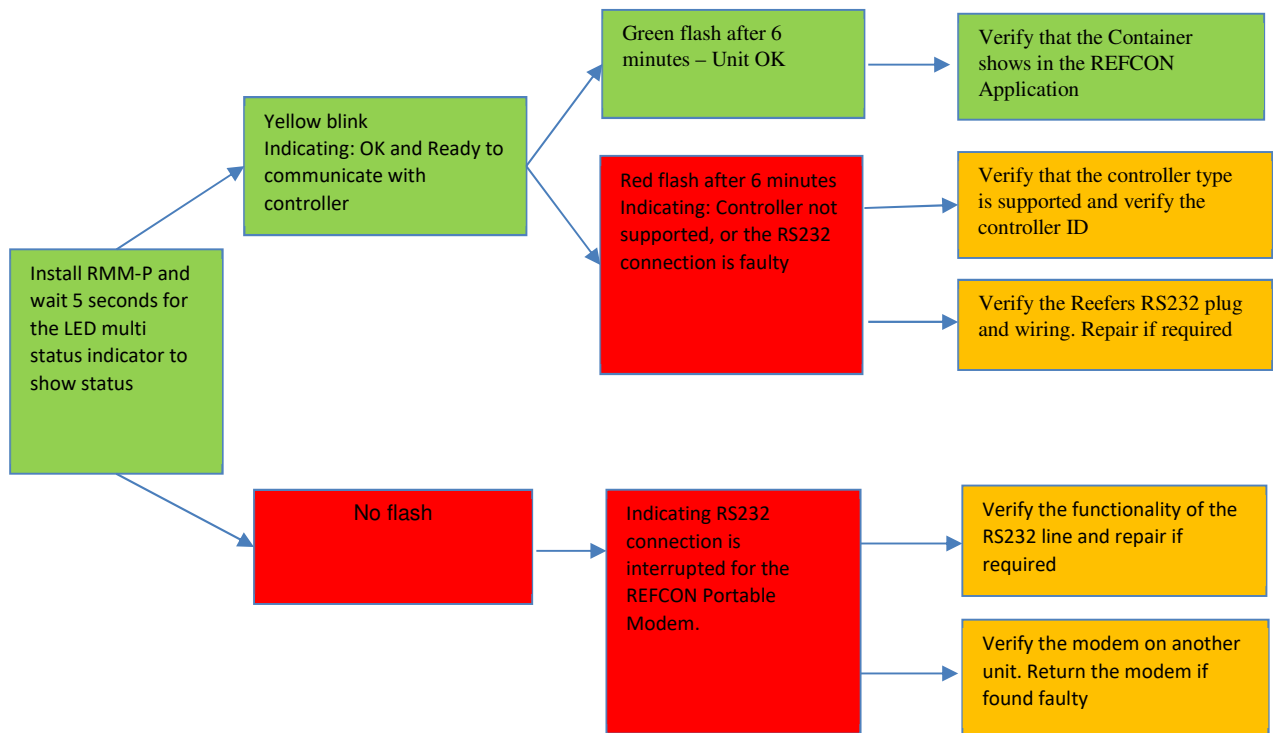
Installation and verification REFCON portable modem

- 3.1 Connect the REFCON Portable modem to the reefers in retriever plug and turn the knob clock wise.
- 3.2 Follow the chart for verification (Figure 1)
- 3.3 Final verification is done by the REFCON Application where the actual Container is showing with the collected data for the specific reefer.

Installation of the REFCON Application

- 3.4 Install the Application on your Android device by following the REFCON Application installation guide.

Figure 1.



Document Revision Record

Rev.	Date	Author	Brief description of change	Pages affected
1.0	060616	JES	Original issue	All
1.1.	120319	JES	Updated legislation text	All