

# Hermes

## RAN2.0

### Hardware Installation Manual

Latest changes: 30.08.2021

## Introduction

The Hermes RAN2.0 is a new Hermes design based on a 3-wire bus for power and data which is built into an aluminium rail. Rail displays are using mechanical contact to connect to the bus.

The Rail Controller includes a radio component to receive and send wireless transmissions to the Access Point. The radio is based on Bluetooth Low Energy (BLE) technology and is operating in the 2.4 GHz ISM band. The protocol implementation is called “RAN2.0”

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## Components

- Rail - aluminium rail + 3-wire bus
- Rail Controller – “bridge” between radio and 3-wire bus of the rail
- Rechargeable battery pack
- Rail Displays – E-ink displays
- BLE Access Point – transmitter device

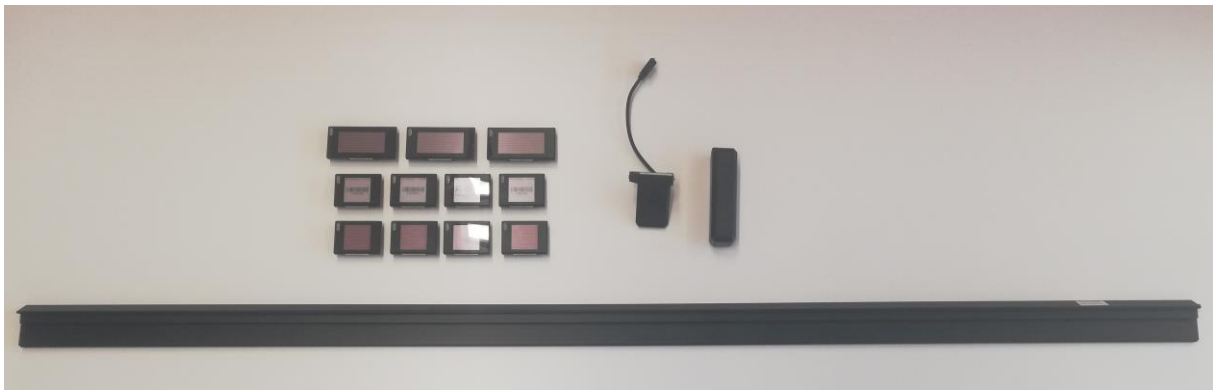


Figure 1 – Rail, Rail Controller, Rechargeable Battery Pack, Rail Displays



Figure 2 - Rail Displays



Figure 3 - Rail Controller & Rechargeable Battery Pack



Figure 4 - BLE Access Point

## Hardware Setup

### 1) Plugging Rail Controller into Rail

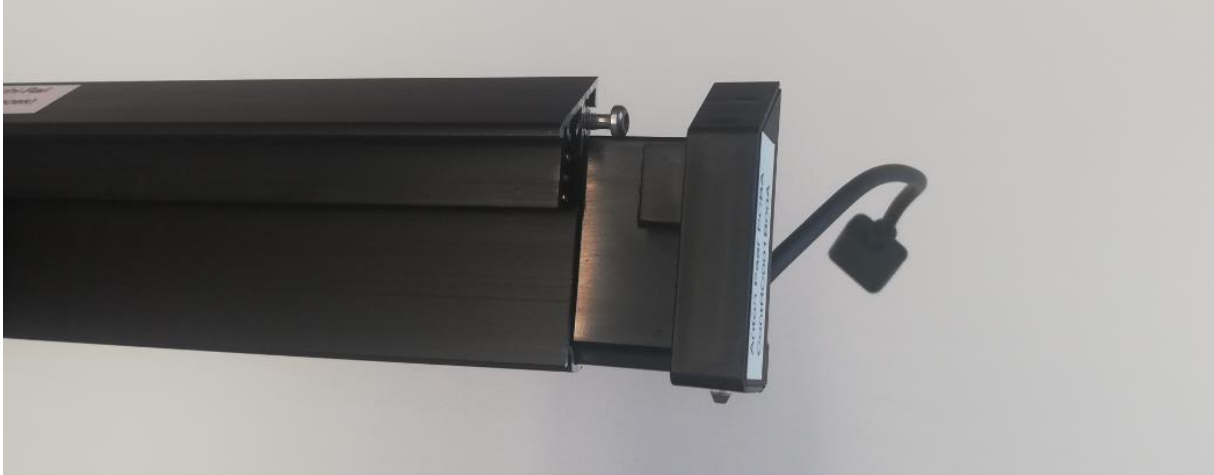


Figure 5 - Plug Rail Controller into Rail



Figure 6 - Plugged Rail with Rail Controller

2) Supplying Rail with power (plugging Rechargeable Battery Pack)



Figure 7 - Rail with Rail Controller and Rechargeable Battery Pack



Figure 8 - Connect Rail with Rail Controller and Rechargeable Battery Pack



Figure 9 - After connecting, the LED of the Rail Controller flashes in green color

### 3) Plugging Rail Displays into the Rail



Figure 10 - Plugging Rail Displays into Rail



Figure 11 - Plugging Rail Displays into Rail



Figure 12 - LED of Rail Displays flashing green when a new Rail Display is plugged to the Rail

## Safe handling of lithium batteries

- Li-ion Battery (18650) had passed the test UN 38.3 and are classified as non-dangerous good.
- Do not allow undiluted product or large quantities of it to reach ground water course or sewage system
- Auto-ignition temperature 130°C
- CB-test reports for used batteries and battery pack itself in progress.

### **Integrated battery overcharge / discharge protection circuits**

#### **WARNING:**

Battery may explode or catch fire if misused.

Do not disassemble, incinerate, or expose to high temperature above 212°F (100°C).

Keep away from children.

For further information scan QR-code.



## Certification



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.

### **CAUTION TO USERS**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**FCC rules** apply to the following products: HMS RD1/160 (Model: HRDX-0160-Y) , HMS RD1/220 (Model: HRDX-220-Y), HMS RC1 (Model: HRCX-BT01-Y)



This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**IC standards** apply to the following products: HMS RD1/160 (Model: HRDX-0160-Y) , HMS RD1/220 (Model: HRDX-220-Y), HMS RC1 (Model: HRCX-BT01-Y)