User manual

RDRDS20303

Reader HID

Mysphera S.L.
Parque Tecnológico de Valencia
Ronda Auguste y Louis Lumiere, 23 – Nave 13,
46980 Paterna (Valencia)
info@mysphera.com
www.mysphera.com
Telf.: +34 96 182 71 77 / Ext. 112
Fax +34 96 182 94 15

Modified December 2019

© 2019 **Mysphera S.L. ("MYSPHERA")** all rights reserved.

Any type of exploitation and, in particular, the reproduction, distribution, public communication and / or transformation, in whole or in part, by any means, of this document without the prior express written consent of MYSPHERA is prohibited.

The warranty and repair services linked to the product will not apply if the product has been repaired, modified or altered, except that such repair, modification or alteration has been authorized in writing by MYSPHERA; or it is not possible to determine the product serial number.

MYSPHERA PROVIDES THIS "AS IS" MANUAL, WITHOUT WARRANTIES OF ANY KIND, OR EXPRESS OR IMPLIED, INCLUDED, BETWEEN OTHER, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITING A PARTICULAR PURPOSE.

NEITHER **MYSPHERA**, NOR ITS PERSONNEL OR AGENTS, WILL BE LIABLE FOR ANY INDIRECT, SPECIAL, ACCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING THOSE DERIVED FROM LOSS OF BENEFITS, LOSS OF COMMERCIAL OPPORTUNITIES, IMPOSSIBILITY OF USING THE COMMITTEE OF THE COMMITTEE, THE BUSINESS UNIT AND OTHER DAMAGES OF A SIMILAR NATURE), EVEN WHEN MYSPHERA HAS BEEN INFORMED OF THE POSSIBILITY THAT SUCH DAMAGES HAVE TO PLACE AS A RESULT OF ANY DEFECTS OR ERRORS IN THIS MANUAL OR IN THE PRODUCT.

THE SPECIFICATIONS AND INFORMATION RELATING TO THE PRODUCTS CONTAINED IN THIS MANUAL ARE MADE AVAILABLE TO THE OWNER FOR EXCLUSIVELY INFORMATIONAL PURPOSES; BOTH ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT PRIOR NOTICE AND A COMMITMENT UNDERTAKEN BY **MYSPHERA** SHOULD NOT BE CONSIDERED.

MYSPHERA DOES NOT ASSUME ANY RESPONSIBILITY OR OBLIGATION IN RELATION TO THOSE ERRORS OR IMPRECISIONS THAT THIS MANUAL MAY CONTAIN, INCLUDING THE PRODUCTS AND THE SOFTWARE THAT ARE DESCRIBED IN IT.

Trademarks and permits:
The names of products and companies that appear in this manual may or may not be registered trademarks or be linked to copyright held by their respective owners; its use is carried out exclusively for identification and explanation purposes and for the benefit of the product owner, without any intention of infringing the indicated rights.

Changes History

Product name	Reader HID		
Product ID	RDRDS20303	**Date version:**	December 2019
		Nº Total pages	12

Version	**Changes**	**Date of change**
0.1	Initial version	07/09/2018
1.0	1st version	13/05/2019
1.1	English version	09/12/2019

Used simbols in this guide:

Simbol	Description
	USB.
	Electric risk.

Warnings:

- The product label is located on the bottom of the product.
- To reduce the risk of fire or electric shock, do not expose the product to rain or moisture.
- Do not place open flame sources, such as burning candles on the product, or in its vicinity.
- Do not expose this product to dripping or splashing.
- This product must be used indoors. It is not designed or tested for outdoor use.
- Operating temperature range: -5ºC to 45ºC

Precautions:

- Do not make unauthorized alterations to this product; doing so may compromise security, compliance with standards, system performance and may void the warranty.

Important Instructions:

- Read these instructions.
- Keep these instructions.
- Observe the warnings.
- Follow all instructions.
- Do not use this appliance near water.
- Perform the installation according to the manufacturer's instructions.
- Do not place it near any heat source, such as radiators, heating grilles, stoves or other appliances (including amplifiers) that produce heat.
- Use only accessories specified by the manufacturer.

Contents

Contents

Contents 4
Contents 4
1. Introduction 5
1.1. Package contents 5
1.2. Usage requirements 5
2. Product description 5
2.1. Version 5
2.2. Identification 5
3. Instalation 6
4. Intended use 7
4.1. Light indicator 8
4.2. Recommendations for use 8
5. Maintenance and cleaning 9
6. Storage and devices removal 9
6.1. Storage 9
6.2. 6.2. Reader HID removal 9
7. Incidents solution 10
7.1. Usual incidents 10
8. Safety information 10
8.1. Electric safety 10
8.2. Other safety considerations 10
8.3. Information about radiofrecuency 11
8.3.1. Radiolectric devices manufacturing 11
8.3.2. Radio Frecuency exposure (RF) 11
9. Declaration of conformity 11
9.1. CE Mark 11
9.2. FCC Mark 11
9.3. Updating device 12
10. Recycling 12
11. Authorized distributors 12

1. Introduction

1.1. Package contents

- Reader HID.
- USB cable 1.8m-2m.

1.2. Usage requirements

- USB 2.0 port. Limitated power to 15 W.
- S.O. Up Windows XP.
- S.O. Up Linux kernel version 2.4.

2. Product description

The Reader HID allows the identification of wristbands easily. Place a bracelet on the reader and it will write its unique identifier on the screen.

The Reader HID works like a computer keyboard, so it is not necessary to install any additional software.

2.1. Version

Product:	RDRDS20303	
Case :	2.1.1	Cover, base, separators and plugs
Hardware:	3.1.0	Hardware based on SoLA31B BLE with double chip
Firmware:	3.0.0	Firmware dual CC2540+CC2541

2.2. Identification

Label on bottom of the device and in the package.

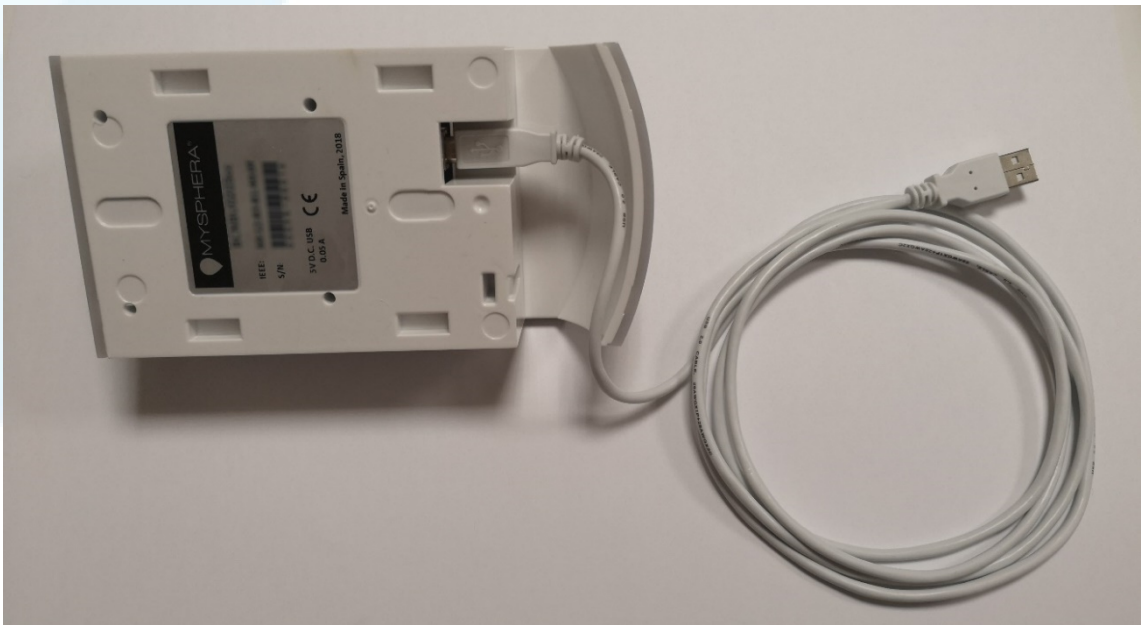
- **Ilustration 1 – Identification Reader HID**

- Product identifier code:
    - Start with 3 letters indicating type / family of the product.
    - Followed by 2 letters indicating the type of interface and / or communication of the product.
    - Followed by 1 digit indicating version of the enclosures / enclosures / mechanical encapsulation.
    - Followed by 2 digits indicating the hardware version.
    - Finishing with 2 digits that indicate the firmware version.
- IEEE adress: 12-digit alphanumeric MAC identification, unique for each device / product manufactured.
- S / N: Serial number of the hardware used in that product.
    - Internal product accounting code.
    - Hardware manufacturing number.
- Electrical characteristics of use.
- Certification and marking symbols: CE and FCC
- Place and year of manufacture.

3. Instalation

The Bracelet Reader is a device with USB power. You need a USB cable type A-B to connect to a computer.

To start using your Wristband Reader, connect the USB cable to the bottom of the reader, as shown in the figure, allowing the cable to exit through the side hole. Connect the other end of the cable to any USB port on the computer. The device will be detected by your operating system and will be installed automatically, being ready for use. The blue indicator light indicates that the device has been correctly installed.

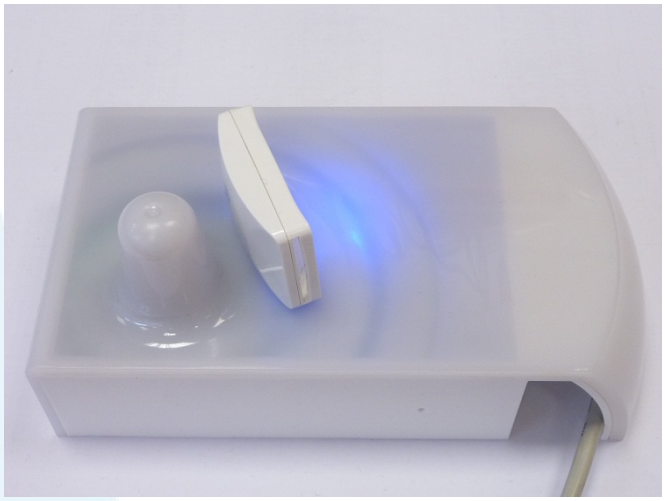


Ilustration 2 – USB cable connection

To disconnect the Wireless Gateway simply disconnect the USB cable.

4. Intended use

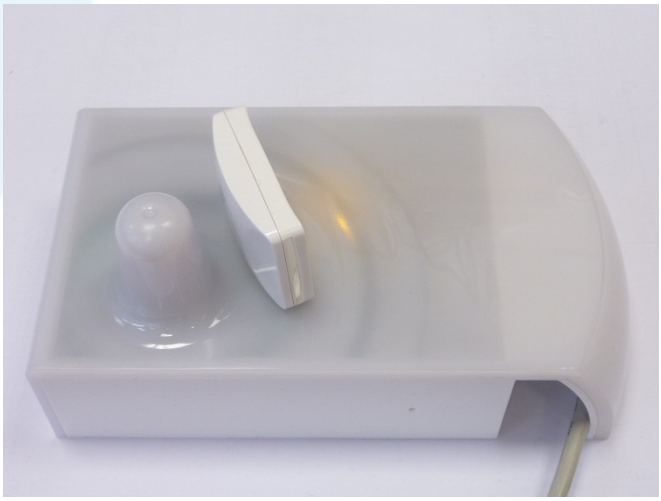
To identify a bracelet once the reader is installed, it should only be placed on the cover of the device so that it is close to the antenna, as shown in the following figure.



Ilustration 3 – Reader ready (Blue light)

Make sure that the cursor on the screen of the computer in which the reader is connected is located in the place you want to write the identifier of the bracelet you wish to identify. The reader works like a keyboard and will write where the cursor is positioned.

When the bracelet is detected the indicator light will turn yellow. Be patient, some reading may take a few seconds.

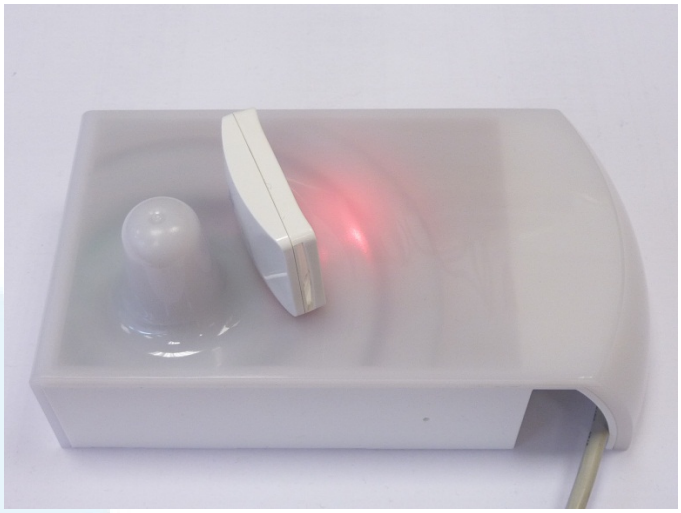


Ilustration 4 – Bracelet detected: blocked reader (Yellow light)

If a correct reading is determined, the reader will write as text the unique identification number of the detected bracelet, in the position where the cursor is on the screen, the device being locked until the bracelet is removed. This is so to avoid repeated reading of the same device. Both the blocking and the yellow light indication will remain until the bracelet is removed. At that time the reader will return to the initial state.

In the event that the bracelet has an almost exhausted battery, the reader will notify you by writing the following text on the screen: “Low battery”

In this case, the indicator light will illuminate in red indicating this situation, until the bracelet is removed from above the reader.



Ilustration 5 – Reader indicating a bracelet with a low battery (Red light)

To avoid unwanted readings, keep the wristbands about 20 cm away from the device. Move the bracelet closer to the device only at the time you wish to read.

If you need to read the same bracelet several times in a row, follow the steps described, and then remove the bracelet until the reader returns to the initial state (blue indicator light without flickering). At that time you can reread the same bracelet.

4.1. Light indicator

The states of the reader HID indicator light are summarized below:

- • Ready (Blue): The reader is ready to read bracelets.
- • Locked (Yellow): The reader has read a bracelet successfully and is locked. You will not read any more bracelets until the read bracelet is removed.
- • Low battery (Red): The detected bracelet has a low battery and must be removed for battery replacement.

4.2. Recommendations for use

To facilitate the reading of bracelets, it is advisable to take into account some considerations:

1. 1. Place the desired bracelet as close as possible to the reader's antenna.
2. 2. Place the bracelet with the screen printing facing up or towards the antenna to improve reception.

5. Maintenance and cleaning

No special cleaning products are needed for cleaning this device. Dampen a cloth with water and run it across the surface.

Do not immerse or clean the device with pressurized water, as it is not waterproof.

	Do not clean the equipment when it is turned on.
	Do not use solvents.

This device does not require special maintenance.

6. Storage and devices removal

6.1. Storage

- When the wireless gateway is not used, it should be stored in a clean and dry area. Otherwise it can become a source of pollution.
- Store the wireless gateway under the following conditions:
- • Temperature: -10 ° C to 50C ° (14 ° F to 122 ° F)
- • Relative humidity: 20% to 80% (no condensation)

6.2. 6.2. Reader HID removal

DO NOT OPEN ANY READER HID

In case of failure or at the end of the use of the reader HID, it must be returned to the manufacturer for replacement and / or repair or removal from the market.

Contact MYSPHERA before disposing of the wireless gateway. This product should not be treated as household waste.

By ensuring that this product is disposed of correctly, it will help avoid possible negative consequences for the environment and human health, which could otherwise be caused by improper handling of the waste from this product.

7. Incidents solution

7.1. Usual incidents

PROBLEM **The reader does not detect a particular bracelet.** SOLUTION Try changing the position bracelet and bringing it closer to the antenna. If the bracelet is still not detected, it probably has run out of battery and will have to be replaced.
PROBLEM **There is no bracelet on the device and it is still locked.** SOLUTION Check that there is no bracelet near the reader. Normally the device should be unlocked in a maximum time of 10 seconds since the bracelet was removed. Once this limit is exceeded, if the device is still blocked, you must disconnect it and reconnect it.
PROBLEM **When the reader indicates "Low battery" the message read is "Baea baa".** SOLUTION There is no problem with the reader. The unique identifiers of the bracelets that are expected in each reading are based on hexadecimal characters, that is, the characters 0 1 2 3 4 5 6 7 8 9 A B C D E F If the software used to process the reading of these identifiers filters these characters, it will not allow the correct writing of the message.
PROBLEM **The identification number appears with special symbols.** SOLUTION The Bracelet Reader may interfere with other keyboards connected to the computer. Check that there is no key pressed on any of those keyboards and that the Lock key. Shift is deactivated

8. Safety information

8.1. Electric safety

Product protected against short circuits.

It does not emit electric shocks.

8.2. Other safety considerations

Product not designed or intended for uses other than its installation in stable places and with the ability to detect movement.

It does not carry an implicit risk for people, animals or objects.

The company is not responsible for improper use of it and the possible consequences that the product itself or the parts that form it may have.

8.3. Information about radiofrecuency

8.3.1. Radiolectric devices manufacturing

Cuadro Nacional Atribución Frecuencias (Spain, Orden ETU/416/2018, 26th April, 2018)

https://www.boe.es/diario_boe/txt.php?id=BOE-A-2018-5704

European Frequency Information System (2402 MHz - 2480 MHz)

https://www.efis.dk/views2/search-general.jsp

MYSPHERA declares that the radio equipment is manufactured so that it can operate in at least one Member State without violating the requirements applicable to the use of the radio spectrum in accordance with Article 10.2 of Directive 2014/53 / EU.

This device can be put into service and used without restrictions in several European Union countries (BE / DE / ES / FR / GR / IT / NL / NO / UK)

8.3.2. Radio Frecuency exposure (RF)

The product works at a very low frequency and the exposure of people to it is not harmful.

This device has been designed and meets the safety requirements for RF exposure of portable devices (<5 mm) in accordance with FCC rule part §2.1093 and KDB 447498 D01.

9. Declaration of conformity

http://www.mysphera.com/declaration-of-conformity

9.1. CE Mark

MySPHERA declares that this device complies with the requirements and specifications set out in Directive 2014/53 / EU (RED).

9.2. FCC Mark

This device complies with the Part 15 C specification of the FCC Rules.

Your operation is subject to the following two conditions:

(1) This device must not cause harmful interference, and

(2) This device must accept any interference received, including interference from improper use.

Changes or modifications not expressly approved by the party responsible for compliance may void the user's authorization to operate the device.

9.3. Updating device

The programming and functionality of the hardware and firmware are carried out at the factory complying with the essential requirements of the product.

The end user cannot make any modification of the FW / SW or functionality or have any button, connector or element that allows changing any parameter that affects the correct functioning of the product or the fulfillment of its essential requirements.

If any update, change or special modification of FW is required, the product must return to Mysphera. You cannot vary operating parameters automatically or remotely.

10. Recycling

The product must not be disposed of as waste and must be delivered to MYSPHERA for proper recycling. Proper disposal and recycling help protect natural resources, people's health and the environment. For more information on the disposal and recycling of this product, contact your municipality, the waste management service or the store where you purchased this product.

11. Authorized distributors

MYSPHERA S.L.
Parque Tecnológico de Valencia
Ronda Auguste y Louis Lumiere, 23 – Nave 13,
E-46980 Paterna (Valencia)
support@mysphera.com
https://www.mysphera.com
Telf.: +34 96 182 71 77
Fax +34 96 182 94 15