User manual :
RFID-BLUETOOTH Card Reader
Reference JI6-200

Document name :		User manual	Document number :	JI6-200 user manual (EN)
Version	**Date**	**Modification**		
V0.0	06/03/2017	Initial version		
V0.1	11/12/2017	Added FCC part 15 certification		
V0.2	15/12/2017	Added IC certification		
V0.3	21/12/2017	Minor changes		

Table of Contents

1 Introduction

The purpose of this document is to explain the installation and use of the RFID – Bluetooth Card Reader reference JI6-200. We advise you to read the entirety of this document before any installation and use of this material.

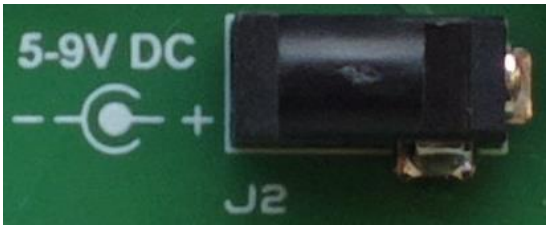
2 Hardware description

Le RFID Card Reader offers the following features :

- Reading of RFID tags:
  - type A,
  - type B,
  - type B' - Calypso
- Radio communication via Bluetooth with smartphone or tablet (Android with the appropriate application)
- 4 LEDs (Light-Emitting Diode) controllable remotely
- A multi-tone signaling buzzer controllable remotely

It is powered via the jack plug (yellow circle) below the card reader:

The pinout and voltage of the jack connector is as follows:



IMPORTANT NOTES :

- It is strongly recommended to use the voltage reduction cables UBI TRANSPORTS reference JI5-120 to supply the validator: these power cables have been specifically designed for this purpose in order to comply with the recommendations of CE, FCC or IC rules for this validator.
- If another power source is used, such as a voltage step-down switch on a cigarette lighter socket of another brand, UBI TRANSPORTS no longer guarantees compliance with the CE, FCC or IC standard and disclaims any responsibility for Consequences of such an arrangement.

3 Mounting the equipment

The installation of the RFID-Bluetooth card reader must be carried out according to the current national standard and by an authorized professional.

The RFID-Bluetooth card reader must be installed in a dry place, protected from splashing, free of oil or grease and out of dust.

First of all, the base of the housing must be screwed onto a rigid and solid support or fixed surface by the fixing holes provided for this purpose (yellow circles):

Pass the jack wire power plug through the center hole of the base (green circles).

The barrel locking system makes it possible to mount and disassemble the RFID-Bluetooth card reader case easily at will on the base after connecting the power supply.

The power outlet is the way to disconnect the power supply from the card reader: as soon as the power plug is plugged in, the RFID-Bluetooth card reader starts.

4 Hardware Operation

4.1 Procedure for Bluetooth pairing of the RFID card reader from the terminal

Here is the procedure for pairing the terminal for normal use of the card reader:

Carde reader	Terminal
Card reader Booting (Beep)	
	Waiting
Blue LED blinking (about 5 times per second)	
	Bluetooth pairing command
If paired : beep and fixed blue LED	

4.2 Low-level communication functions

The low-level communication functions (remote and control the card reader) are described in the appendix "JI6-200 appendix communication".

5 Cleaning, storage and maintenance

5.1 Cleaning

The RFID-Bluetooth card reader can be cleaned with a soft, dry cloth.

- Never soak the card reader in water or a liquid to clean it
- Never use solvents, corrosive agents or detergents to clean them
- Never open the electronic case

5.2 Storage

Store RFID-Bluetooth card reader in a dry and tempered location.

5.3 Maintenance

In case of non-operation of the card reader, two usual checks must be made:

- Check the correct connection of the power supply wire
- Check the presence of voltage (5 to 9Vdc) on the power cable

If these two checks are conclusive and the card reader still does not work, remove and return the voltage reducing cable to an authorized UBI TRANSPORTS workshop.

Any use of the equipment not included in the accompanying documents may damage the equipment and cause danger! In this case, UBI TRANSPORTS waives its liability in respect of the guarantee or the consequences of such use.

6 Disposal and recycling

If the voltage reducing cable is scrapped, it must be brought to an authorized center to recycle the electrical equipment to protect the environment and persons from possible injury.

Do not leave the equipment in the environment.

The meaning of the symbol on the product, its accessories or its packaging indicates that this product should not be treated as a domestic waste. Please put this device disposed at the collection point in your area for recycling electrical and electronic waste.

In Europe, there are some collection points for electrical and electronic products and devices.

By properly disposing of this product, you are helping to prevent potential hazards to the environment and human health that may otherwise result from inadequate management of this product. Recycling materials will conserve natural resources.
Please do not dispose of old electrical and electronic appliances with your domestic waste.
For more detailed information on the recycling of this product, please contact your waste collection service.

7 Technical Specifications

Input Voltage : 5V DC through the jack socket

Maximum input current: 200 mA

Protection class: Not protected

Operating temperature: from -5°C to +45°C (23°F to 113°F)

Operating hygrometry: less than 90%

Operating altitude: 3500m maximum (11500 ft)

Dimension du boitier : 160 x 110 x 30 mm (6.30 x 4.33 x 1.18 in)

Overvoltage category : Category II

Weight: 107 g

Performances :

- Average detection distance: 4 to 6 cm (1.5 to 2.5 in)
- Response time: about 200ms max
- Reading tags type A and B according to ISO14443
- Reading of type B 'tags (Calypso) according to ISO14443

8 Certification and symbols

« CE » marking : This symbol indicates that this product complies with the European standard EN60950 and meets the electrical safety requirements imposed by this standard.

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

NOTE: This equipment 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 instruction, 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 interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on circuit different from that to which the receiver is connected.

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

This device complies with FCC RF radiation exposure limits set forth for general population. This device must be installed to

provide 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.

FCC ID equipment : 2AOI2-JI6200

Contains FCC ID : A8TBM78ABCDEFGH

IC

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This device complies with Industry Canada RF radiation exposure limits set forth for general population. This device must be installed to provide 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.

IC ID equipment : 23449-JI6200

Contains IC ID : 12246A-BM78SPPS5M2

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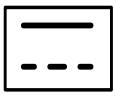

« Direct Current » marking : This symbol means that this product can only be powered by a **DC power source**. AC power is strictly forbidden and could lead to deterioration of this product.

9 Manufacturer's contact :

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