

# Puck Base RFID Scanner

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## Getting Started Guide



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### **LEGAL INFORMATION**

PMU23083 - AA / 2023-01-23

## 1. Conditions for using the product

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Like our other desktop readers, the Puck Base RFID Scanner has been designed to be installed on a desk, display stand, or other equipment that does not require special installation.

We recommend that you install our desktop products in a clean, dry area, avoiding contact with metal objects as much as possible.

The Puck Base RFID Scanner is not a frisbee or a real hockey puck, so avoid throwing it, opening the mechanism or trying to pierce the casing with any tool.

**Note : Misuse is not covered by the warranty**

## 2. Overview

The Puck Base RFID Scanner is a user-friendly contactless (NFC/RFID @13.56MHz) coupling device. This product is part of a family of readers called "[Puck](#)".

An RFID Scanner is a device seen as a keyboard by the computer it is connected to. Therefore, there is no need to install any driver, you just plug the Puck Base RFID Scanner to your computer and it will reach precise cards data and the computer receives these data as if someone was typing them on a keyboard.

This document will guide you through exploring the available software for a successful start using your **Puck base RFID Scanner**.

### 1.1. Products covered by this guide

Order Code	Description
SC21030	Puck Base (RFID Scanner) - QWERTY
SC20173	Puck Base (RFID Scanner) - AZERTY

*N.B : The Keyboard layout can be easily changed on the field using our Companion Software.*

#### Important warning

The Puck base RFID Scanner uses a magnetic field to remotely power the contactless cards, and communicate with them. Magnetic waves are distorted or absorbed by conductive materials, including metal surfaces or shells. Also, the NFC/RFID communication is likely to be perturbed by other radiating devices (such as displays, radio or wireless communication interfaces) nearby. Place the PUCK Base RFID Scanner far from all sources of perturbations.

## 2. Before you begin

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SpringCard aims at making contactless devices simple to use. Even so you will win time by reading this guide before plugging the device to your computer.

Please visit the Puck Base RFID Scanner's web page to get up-to-date information regarding the device and download the last version of all documentations :

<https://www.springcard.com/en/products/puck-base>

## 3. Plug the coupler into a USB port

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Plug the Puck Base RFID Scanner into one of the computer's USB ports.

Wait 10 to 120 seconds until the operating system activates the driver and enables the coupling device.

Windows takes 10 to 120 seconds the first time you plug the coupling device into the computer only. Afterwards, the coupling device will be activated in a couple of seconds.

Keep an eye on the device : The Puck Base RFID Scanner will "beep" when connected to the PC and the crown-shaped LED will flash rapidly for one second (1s).

As soon as the blue light enters a smooth "breath" sequence, the device is ready!

Blue light is the default color built into the reader configuration, you can change this color using the Companion software. We will see how to do this below.

### Precautions

As a contactless coupler, the Puck Base RFID Scanner needs a clean power supply to remotely power the contactless cards, RFID labels or NFC tags. Do not try to operate the device through a non-powered USB hub nor through a passive USB cable extender.

## 4. Plug the coupler into a USB port

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You need a (compliant) contactless card to pass this step. Use for instance a card from the NXP MIFARE family, or any NFC Forum Tag.

SpringCard also offers contactless cards. Need a small assortment of various chips to start your developments, or a large batch to issue many cards to your users ? Just contact us :

<https://www.springcard.com/en/products/rfid-nfc-cards>

Verify that the Puck Base RFID Scanner is seen as a keyboard on your computer.

To do so you just need to make sure that when a contactless card, an NFC tag or an RFID label is placed onto the Puck Base RFID Scanner the informations contained in the card appears on your computer (In a notepad or any other text editor (Word, EXcel, etc.) and you should hear a beep from the device meaning that the card has been “read” by the Puck Base RFID Scanner.

You can also go to the Device Manager in the Control Panel of your computer and browse the Puck Base RFID Scanner in the device tree. Then go to input devices and standard keyboard.

**Congratulations, your Puck Base RFID Scanner is ready to work with!**

## 5. Understanding the LEDs & beeper

The information in the table below is for the **default configuration** of a Puck Base RFID Scanner.

U.I. status	Description
“Breathing” blue	The device is ready, awaiting for a contactless card
Single beep + Solid green	A contactless card is present and available for operation
Repeated beeps	The communication between the device and the cards is not reliable. Move the card closer to the device. Install the device elsewhere.
Red, Blinking	Malfunction (hardware error or overheating)
Color Fixed white	The PC has not activated the device yet

## 6. FAQ

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### ***The device shows à, é, “; - etc... instead of numbers***

It means that your Puck Base RFID Scanner is in QWERTY and not AZERTY. To modify this you need to take a look at your Device configuration (page 12-13)

### ***The device shows numbers instead of @, ),-***

It means that your Puck Base RFID Scanner is in AZERTY and not QWERTY.

### ***The device does not light up / the device lights up but does nothing when a card is presented / the device lights up and remains with a permanent green light after a card is presented.***

Plug the device directly into one of the computer's USB port and not through a hub or cable expender.

### ***The Puck base does not return the data from a card to a PC (in a notepad), but beeps and turns green when the card is scanned - it is not listed by OS as a keyboard (Human Interface Device) but as a PC/SC coupler.***

Your device is a Puck Base PC/SC, not a Puck Base RFID Scanner. More details here :

<https://www.springcard.com/en/learning/reader-or-coupling-device>

### ***The device does not 'see' my contactless card***

Verify that your card is in the compliance list (basically: compliant with ISO/IEC 14443-3 or ISO/IEC 15693-3 or a NFC Forum Tag)

Verify that your card is physically compliant with the coupler's RF field level and sensitivity

(basically: card's antenna compliant with ISO/IEC 14443-1, card validated with ISO/IEC 10373-6 or -7).

## 7. Contacting support

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To contact SpringCard technical support, please go to :

<https://www.springcard.com/en/contact?request=support>



For a fast and efficient processing of your support requests, please provide accurate information on the environment (contactless card, operating system, driver version, firmware version, etc) and all details you have on the issue itself.

## 8. Going further - Device configuration

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The Puck Base RFID Scanner is highly configurable. Out-of-factory settings cover most of the use cases immediately, but advanced users may prefer to load a custom configuration into the device. For instance, it is possible to switch off the sound (beeper) or to disable some protocols, to silently ignore certain contactless cards.

To edit the configuration of the Prox'N'Roll HSP RFID Scanner, download and install Companion :

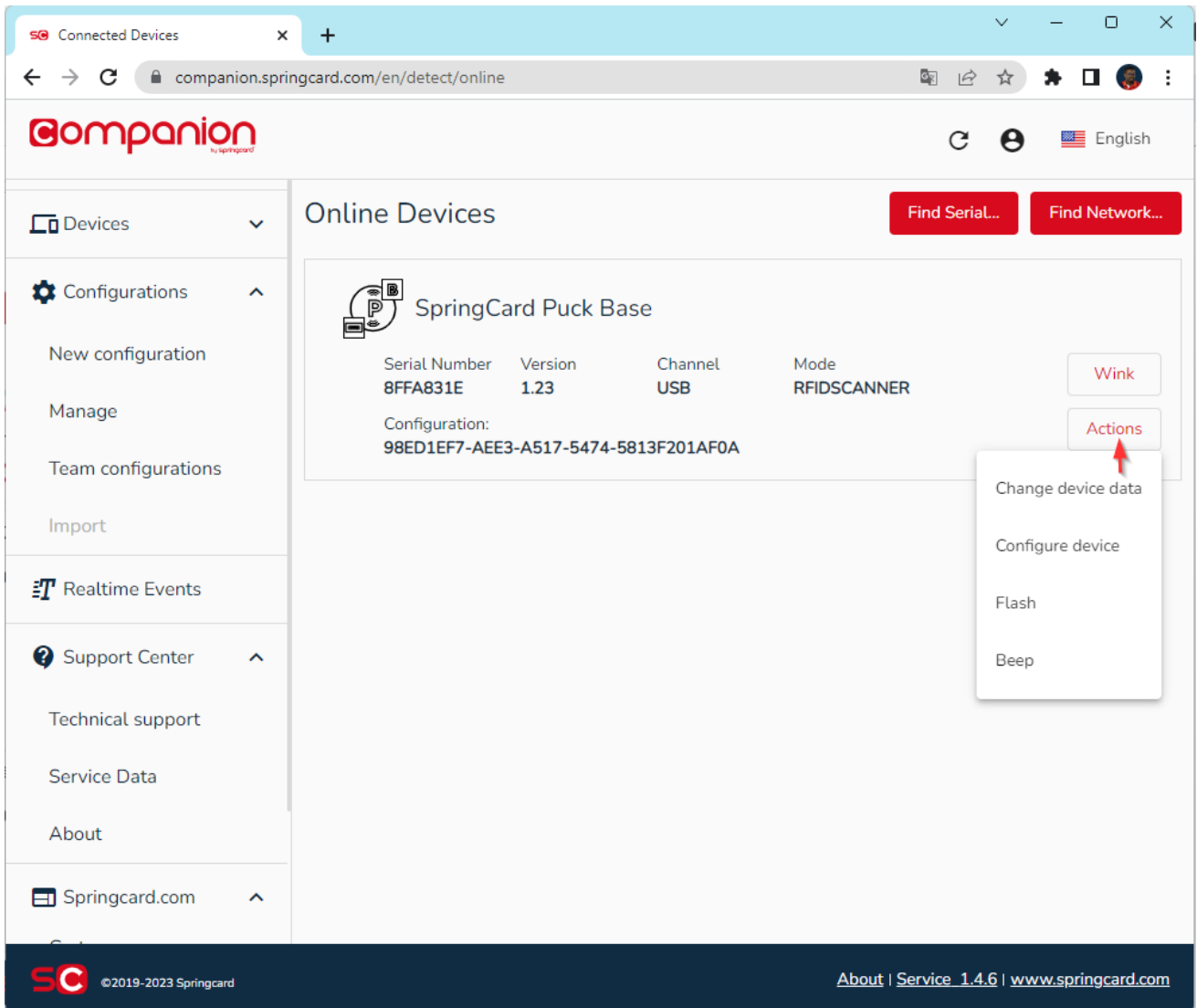
<https://www.springcard.com/en/download/find/file/sn20030>

In the following link you will find the tutorial on how to install it :

<https://tech.springcard.com/2021/getting-started-with-springcard-companion/>

**SpringCard Companion** is the common name for a set of software and cloud-based services that leverage the new generation of SpringCard devices. More details [here](#).

**Companion** is available only on Microsoft Windows, but once the device has been configured, its settings are preserved when connecting to another operating system.



Configuration - Puck Base

companion.springcard.com/en/Fpf18175SpringcoreH518PuckComponent/0/833/0

Companion by springcard

English

Configure Puck Base

Apply to device

Templates

Advanced

Puck base RFID Scanner HID Keyboard 12/04/2023 17:59

Main configuration

### Profile

This register defines how the product is seen by the hosts: USB or BLE profile, primary interface, primary communication protocol. It implicitly activates either [Operating mode](#).

Primary profile

- SpringCore Direct
- SpringProx Legacy...
- CCID (PC/SC or PC/SC-...
- HID, keyboard-...**
- Smart Reader...

### USB options

Control various options related to the USB interface.

If the product has no USB interface, this register is ignored.

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The screenshot shows the 'Options for the main 4-LED ramp' configuration page in the Springcard Companion web application. The browser address bar shows the URL: `companion.springcard.com/en/Fpf18175SpringcoreH518PuckComponent/0/842/0`. The page title is 'Options for the main 4-LED ramp'. Below the title, there is a description: 'For products that have a set of 4 LEDs as primary user interface, this register control their behaviour. This register is ignored if the product's primary UI is an **RGB LED**.' Below this, the current value is shown as '00' with a note: 'Options for the main 4-LED ramp' and 'Use hexadecimal notation (i.e FA04D3)'. The main section is titled 'Settings for the main RGB LED(s)' and includes a description: 'For products that have a RGB LED (or a set of RGB LEDs) as primary user interface, this register defines its color and behaviour.' Below this, there is a section 'Color of the RGB LED(s) when the product is active, waiting for a card' with a list of color options, each with a radio button. The 'Blue' option is selected.

**Options for the main 4-LED ramp**

For products that have a set of 4 LEDs as primary user interface, this register control their behaviour. This register is ignored if the product's primary UI is an **RGB LED**.

Options for the main 4-LED ramp  
00

Use hexadecimal notation (i.e FA04D3)

**Settings for the main RGB LED(s)**

For products that have a RGB LED (or a set of RGB LEDs) as primary user interface, this register defines its color and behaviour.

Color of the RGB LED(s) when the product is active, waiting for a card

- White
- Red
- Dark Red
- Yellow
- Dark Yellow
- Green
- Dark Green
- Cyan
- Dark Cyan
- Blue
- Dark Blue
- Magenta
- Dark Magenta
- Pink
- Purple
- Orange

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Configuration - Puck Base

companion.springcard.com/en/Fpf181755SpringcoreH518PuckComponent/0/833/0

Companion by springcard

English

Configure Puck Base

Apply to device Templates Advanced

Puck base RFID Scanner HID Keyboard 12/04/2023 17:59

- Main configuration
- Integrator's license
- Configuration of the user interface
- Configuration for Smart Reader operation**
- Security-related configuration
- Configuration of the Contactless (NFC) interface in poller (reader) mode
- Configuration of the smartcard interface(s)
- Configuration of the NFC interface in listener mode

Target firmware version: 1.24

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The screenshot shows the 'Companion' configuration page for a Smart Reader. The left sidebar contains navigation options: Devices, Configurations (with sub-items: New configuration, Manage, Team configurations, Import), Realtime Events, Support Center (with sub-items: Technical support, Service Data, About), and Springcard.com (with sub-item: Go to). The main content area is titled 'Smart Reader timings' and includes a sub-section 'Keyboard layout'. The 'Smart Reader timings' section contains two input fields for delays, both set to '00', with a note to use hexadecimal notation. The 'Keyboard layout' section defines the keyboard layout for keyboard-emulation mode and includes a dropdown menu for 'Keyboard layout' with options: US, QWERTY (selected), French, AZERTY, complete (with num. padd), German, QWERTZ, French, AZERTY, laptop (no num. padd), English (extended), QWERTY, and French (extended), AZERTY. Below the dropdown, there is a field for 'Suffix: string sent after the data in keyboard mode'. The footer contains the Springcard logo, copyright information (©2019-2023 Springcard), and links for 'About | Service 1.4.6 | www.springcard.com'.

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