

2022



# AIR-USB

USB RFID ISSUER with COPY-PROTECTION feature

Manual

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# GENERAL PURPOSE

The AIR-USB issuer is designed to work with any Access Control System software on a PC on the selected operating mode:

1. **Read RFID tags** - used as a desktop reader for RFID tags (125 kHz and 13.56 MHz) and Bluetooth AIR Key tags to add to the system.
2. **Encrypt RFID** - used to encode RFID tags 13.56 MHz Mifare - 1k,4k, MINI.
3. **Restore RFID** - used to decode RFID tags 13.56 MHz Mifare - 1k,4k, MINI.

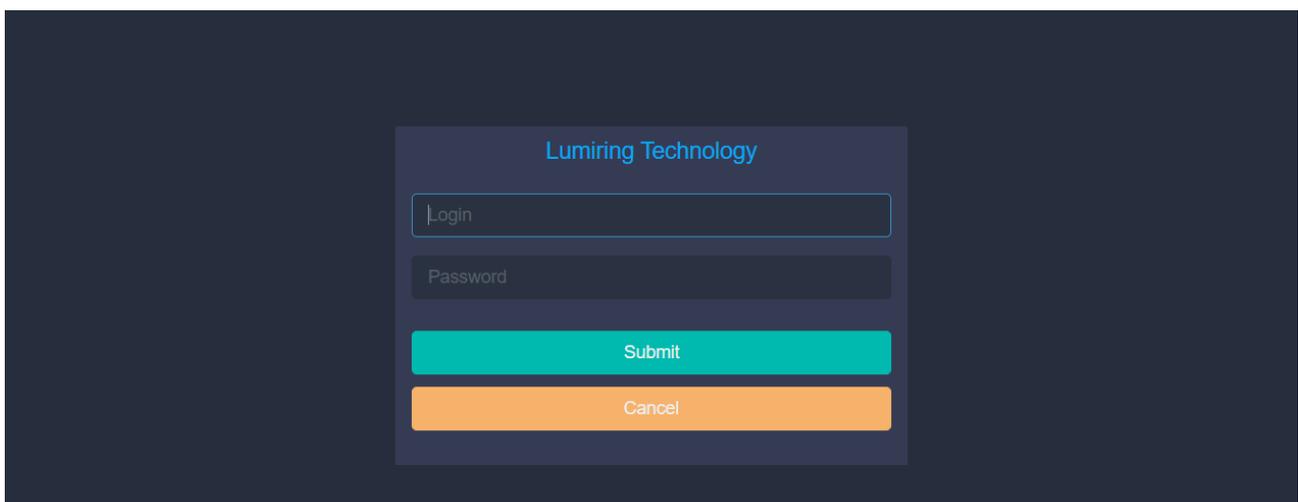
The AIR-USB device supports the transmission of RFID tag information in various Wiegand modes: 8/26/34/44

# CONNECTION

The AIR-USB Issuer uses its own Wi-Fi AP/access point for connection, which is available for some time after the device is turned on, as well as a web-based interface for making settings and selecting operating modes. For the first connection and setup, you can use a smartphone, tablet, or laptop.

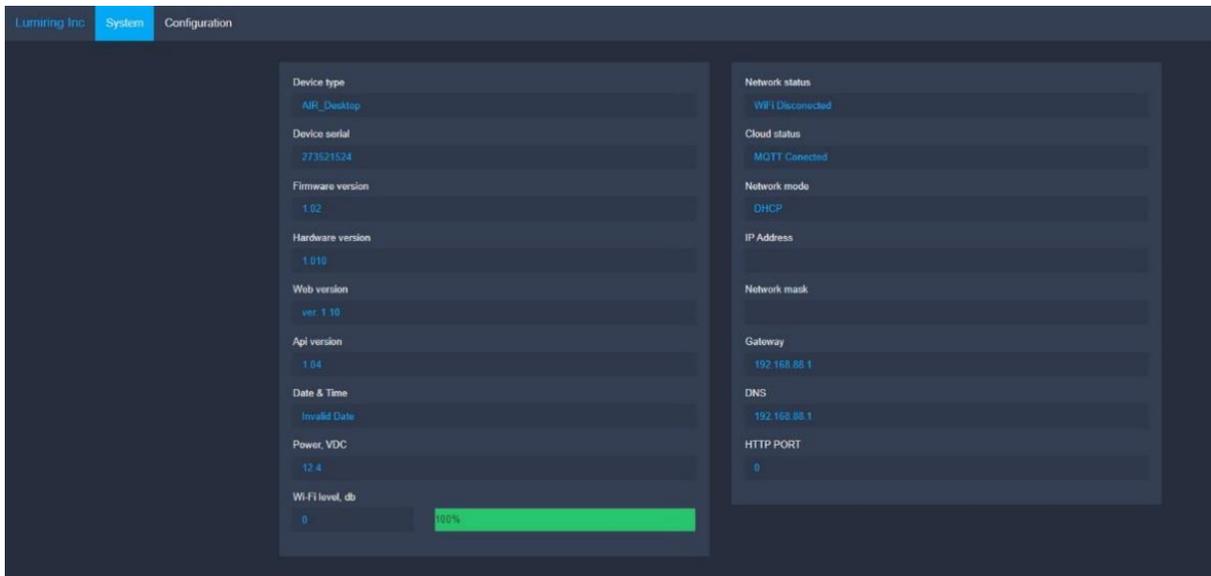
Follow these steps to connect:

1. **Connect the device to the USB port of the PC** - all the drivers necessary for the operation of the device will be installed automatically.
2. **Connect to the device via WI-Fi** - use network scanning to do this. The device name is "AIR\_Desktop\_XXXXXXXX" (where XXXXXXXX is the serial number of the device).
3. **Go to the device's web-based interface** - to do this, open a browser and enter the IP address 192.168.4.1 to go to the device's web-based interface.
4. **Login** - for the initial login, you do not need to use either login or a password. Leave these fields blank and click Submit.



# WEB-BASED INTERFACE

The first page of the interface contains detailed information about the device, software version, network settings, Wi-Fi connection signal strength, and the status of all connections.

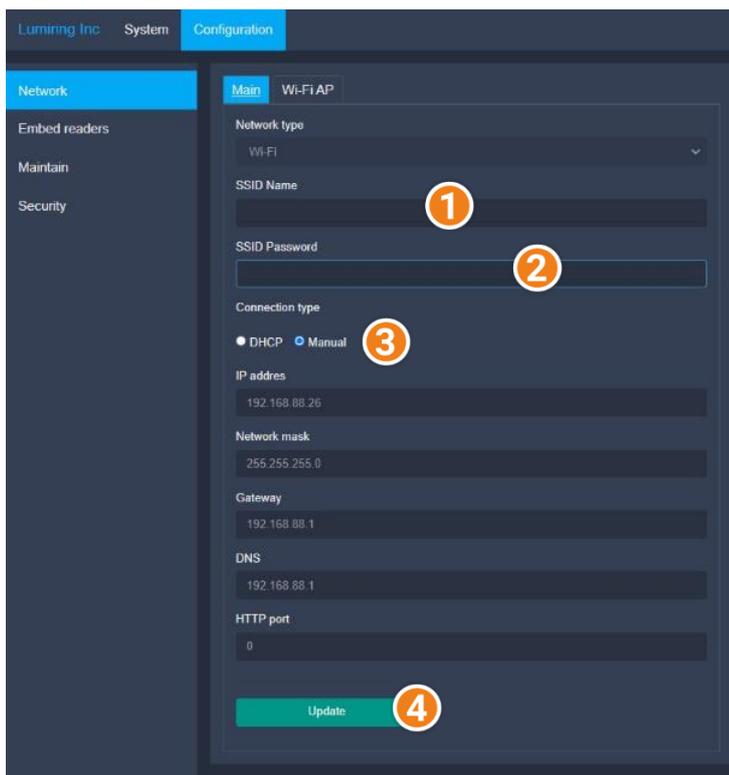


## NETWORK SETTINGS

### Main network settings

Menu navigation sequence: Configuration -> Network -> Main

On this page, the user can configure the device's connection to an external Wi-Fi network and the Internet.



Connecting the device to an external network allows the system administrator to remotely change the device settings and update the device firmware.

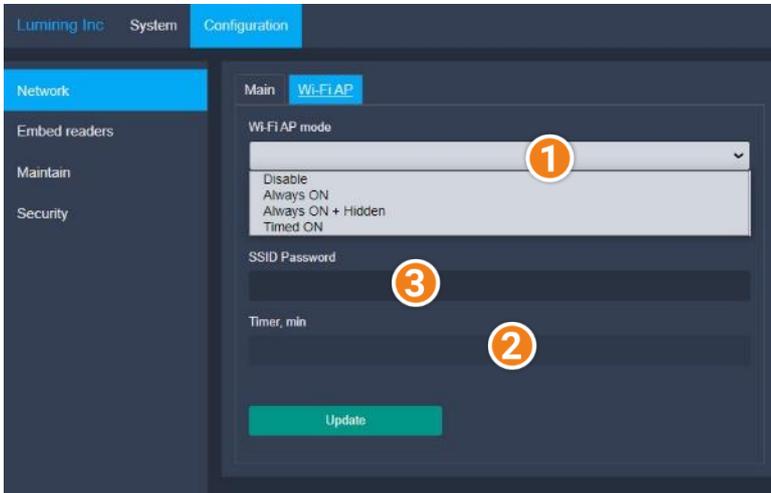
To connect an AIR-USB device to a Wi-Fi router, follow these steps:

1. Enter the name of the Wi-Fi network you are connecting to in the SSID Name field (1)
2. Enter the password of the Wi-Fi network you are connecting to in the SSID Password field (2)
1. Choose connection type (3):
  - DHCP - to receive automatic connection settings
  - Manual (Recommended) - configure the connection yourself.
2. Save the settings by clicking Update (4).

## Local Wi-Fi Access Point settings

Menu navigation sequence: Configuration -> Network -> Wi-Fi AP

On this page, the user can set the Wi-Fi hotspot mode and the time during which the Wi-Fi hotspot will be available for connection, as well as set a password to connect to the device's AP.



To configure, select the desired Wi-Fi AP Mode **(1)**:

- **Disable.** Wi-Fi hotspot disabled
- **Always ON.** The Wi-Fi hotspot is always on while the device is running.
- **Always-ON + Hidden.** The Wi-Fi hotspot is always on during operation, but the SSID is hidden. To connect, you must enter the SSID manually. The device's SSID will be hidden when scanning Wi-Fi.
- **Timed ON.** The Wi-Fi access point will be available for connection during the specified time in the Timer Min field **(2)** after the device is turned on.

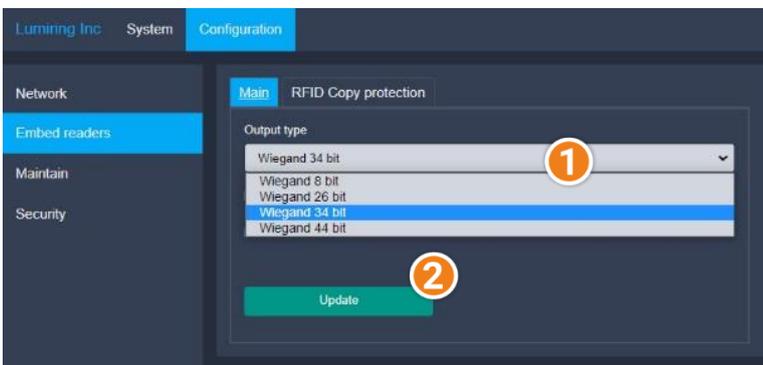
SSID Password **(3)** - enter the password to connect to the Wi-Fi AP access point to prevent unauthorized connections to the device.

## RFID SETTINGS

### Main RFID settings

Menu navigation sequence: Configuration -> Embed readers-> Main

Different access control systems require different settings for the RFID code transmission format. On this page, the user can select the required code transfer format to ensure compatibility with other access control systems.



1. Select the «Output type» **(1)**
2. Save the settings by clicking «Update» **(2)**

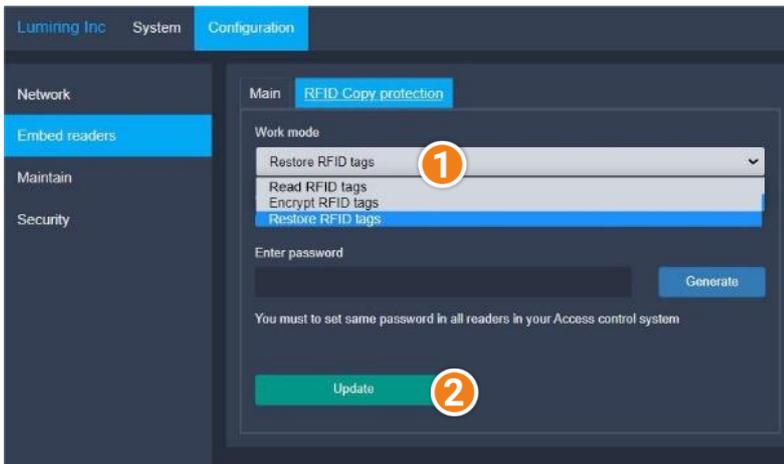
## RFID copy protection settings

Menu navigation sequence: Configuration -> Embed readers-> RFID Copy protection

Depending on the choice, the device can operate in 3 modes:

### Mode «Read RFID tags»

Device indication color: [Blue](#)



In this mode, the device works like a regular USB issuer for ACS.

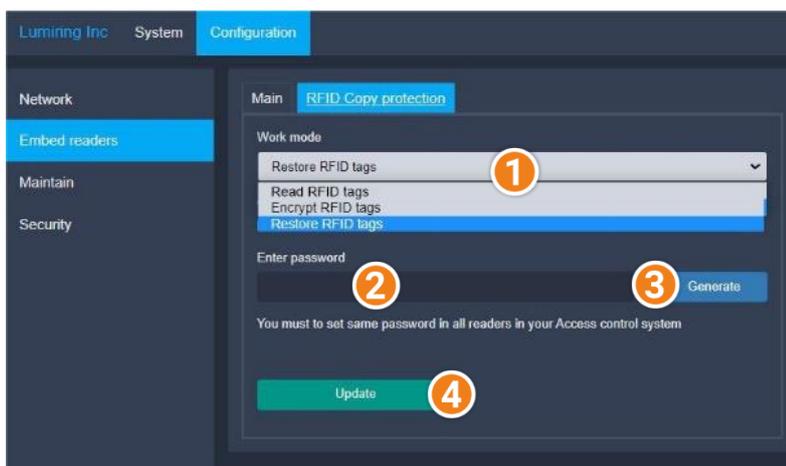
To select the Read RFID tags mode, do the following:

1. Select the device operation mode from the «Work mode» (1).
2. Save the settings by clicking Update (2)
3. Reboot the device for the settings to take effect.

### Mode «Encrypt RFID tags»

Device indication color: [Red](#)

Copy protection is the main feature of the device. In this mode, the device will protect the tag from cloning. You can enter the encryption password yourself in the Enter Password field or generate it by clicking Generate. The password must be at least eight characters long.



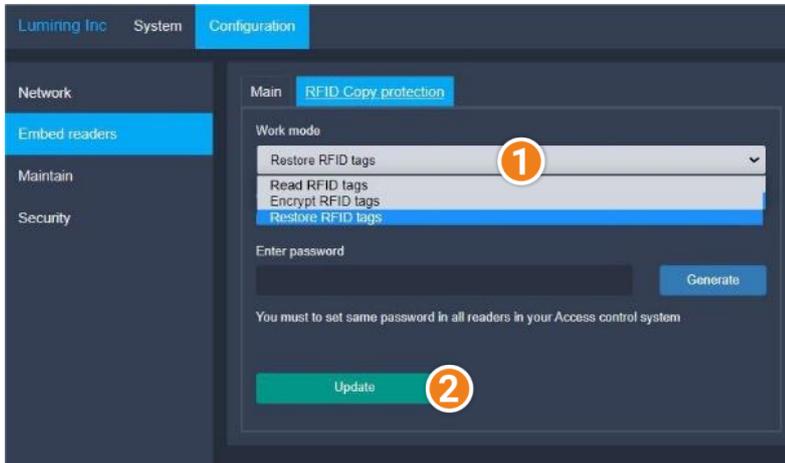
To select the Encrypt RFID mode, follow these steps:

1. Select the device operation mode from the «Work mode»(1)
2. Enter a password in the Enter Password field(2) or click the Generate button(3)
3. Save the settings by clicking Update(4)
4. Reboot the device for the settings to take effect.

## Mode «Restore RFID tags»

Device indication color: [Green](#)

In this mode, the device will remove the copy protection from the protected RFID tag and restore it to its original state.



To select the Restore RFID mode, follow these steps:

1. Select the device operation mode from the «Work mode»(1)
2. Save the settings by clicking Update(2)
3. Reboot the device for the settings to take effect.

## WORK ROUTE

### Note

The time of the encryption/recovery procedure depends on the memory size of the RFID tags. Example: Mifare 1K - up to 10 seconds, Mifare 4K - up to 19 seconds, Mifare MINI 4K - up to 4 seconds.

## Read RFID Tags

To read the card code, in the [Read RFID tags](#) mode, do the following:

1. Select the area for entering the code by moving the mouse cursor over it. Confirm your choice by pressing the left mouse button.
2. Bring the card to the issuer. After the successful reading of the RFID tag, the device will emit two short beeps. Reading time usually does not take more than 1 second.
3. Confirm adding the code to the system if required.
4. Repeat the steps from Step 1 if adding multiple cards.

## Encrypt RFID Tags

To start the card encoding procedure, in the [Encrypt RFID tags](#) mode, do the following:

1. Bring the card to the issuer and hold to start the encoding procedure. The device will emit 1 short beep to indicate the start of encoding and 2 short beeps upon successful completion. If the encoding process fails (for example, the type of RFID tag is not intended for encoding, is damaged, or the user removed the card before the encoding process was completed), the user will hear 1 short and 2 long beeps.

2. Repeat the steps from Step 1 when encoding multiple cards.

## Restore RFID tags

To start the card decoding procedure, in the **Restore RFID tags** mode, do the following:

1. Bring the card to the issuer and hold. The device will emit 1 short beep before starting the recovery procedure and 2 short beeps upon successful completion. If the decoding process fails (for example, the type of RFID tag is not intended for decoding, is damaged, or the user removed the card before the decoding process was completed), the user will hear 1 short and 2 long beeps.
2. Repeat the steps from Step 1 when encoding multiple cards.