

MAGIKIT BOX USER MANUEL

DUAL FREQUENCY ENCODER



MagiKit Box-Dual Frequency Encoder

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INTRODUCTION

The MagiKit Box is a Dual Frequency encoder that supports 125KHz and 13.56MHz. Additionally, the MagiKit box can be used to read NFC tags and program unique tooling's. With the MagiKit box you are able to read and write your own proximity credential.

PROCESS OVERVIEW

Below is a quick review of what the typical process for using one of the functions the MagiKit Box provides. Depending on your preferred function you would then follow the steps provided for that individual process.

Typical sequence for using the software:

1. Download software link from Freevision web page or email link
2. Choose the preferred Function
 - a. NFC
 - b. NFC Tooling
 - c. High Frequency Reader
 - d. Low Frequency Reader
3. NFC
 - i. READ
 - ii. WRITE
 - iii. URL LINK
4. NFC Tool
 - i. UID IN URL
 - ii. ISO-14443A TRACABILITY DATA
5. High Frequency Reader
 - i. READ HF UID
 - ii. WRITE/READ HF MEMORY BLOCK INFORMATION
6. Low Frequency Reader
 - i. READ LF CREDENTIALS
 - ii. WRITE LF CREDENTIALS
7. Request Credits Added

DOWNLOAD SOFTWARE LINK VIA WEBSITE OR EMAIL

To begin using the MagiKit box please download the necessary software in order to operate the MagiKit box hardware. The software can be downloaded via the link below under MagiKit box software. Another option is to email support@freevisiontechnologiesusa.com for a copy of the software. All programs are available to read but require the purchase of credits through software if you wish to write/program 125KHz credentials or program NFC tags.

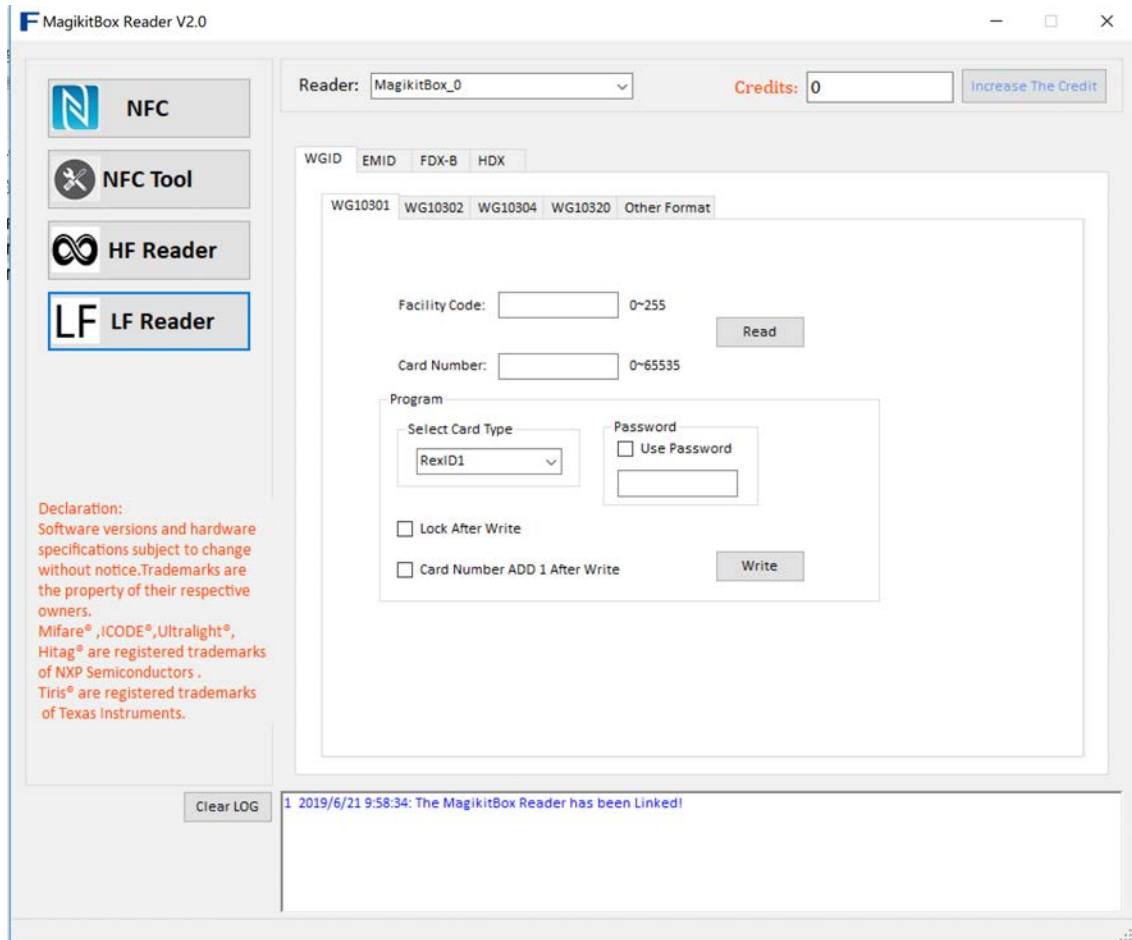
[HTTP://WWW.FREEVISIONCORP.COM/SUPPORT/SOFTWARE](http://www.freevisioncorp.com/support/software)

CHOOSE THE PREFERRED FUNCTION

Once you download the software and install you will be able to choose the function you wish to use with the Magikit box.

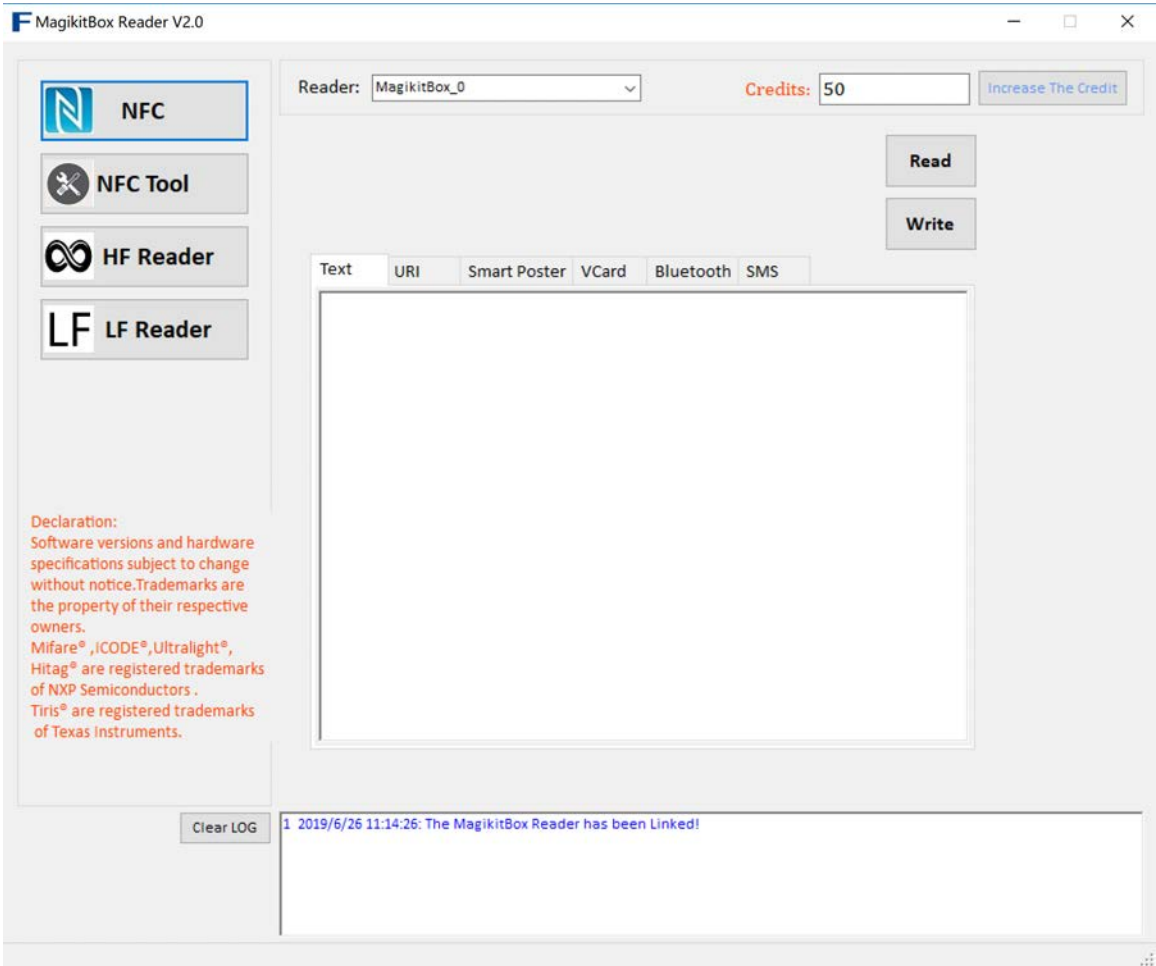
CHOOSE FUNCTION

1. NFC
2. NFC Tool
3. High Frequency Encoder
4. Low Frequency Encoder



NFC:

1. Place NFC Tag on MagiKit Box



MagikitBox Reader V2.0

Reader: Credits: [Increase The Credit](#)

NFC

NFC Tool

HF Reader

LF Reader

Read

Write

Text URI Smart Poster VCard Bluetooth SMS

Declaration:
Software versions and hardware specifications subject to change without notice. Trademarks are the property of their respective owners.
Mifare®, iCODE®, Ultralight®, Hitag® are registered trademarks of NXP Semiconductors.
Tiris® are registered trademarks of Texas Instruments.

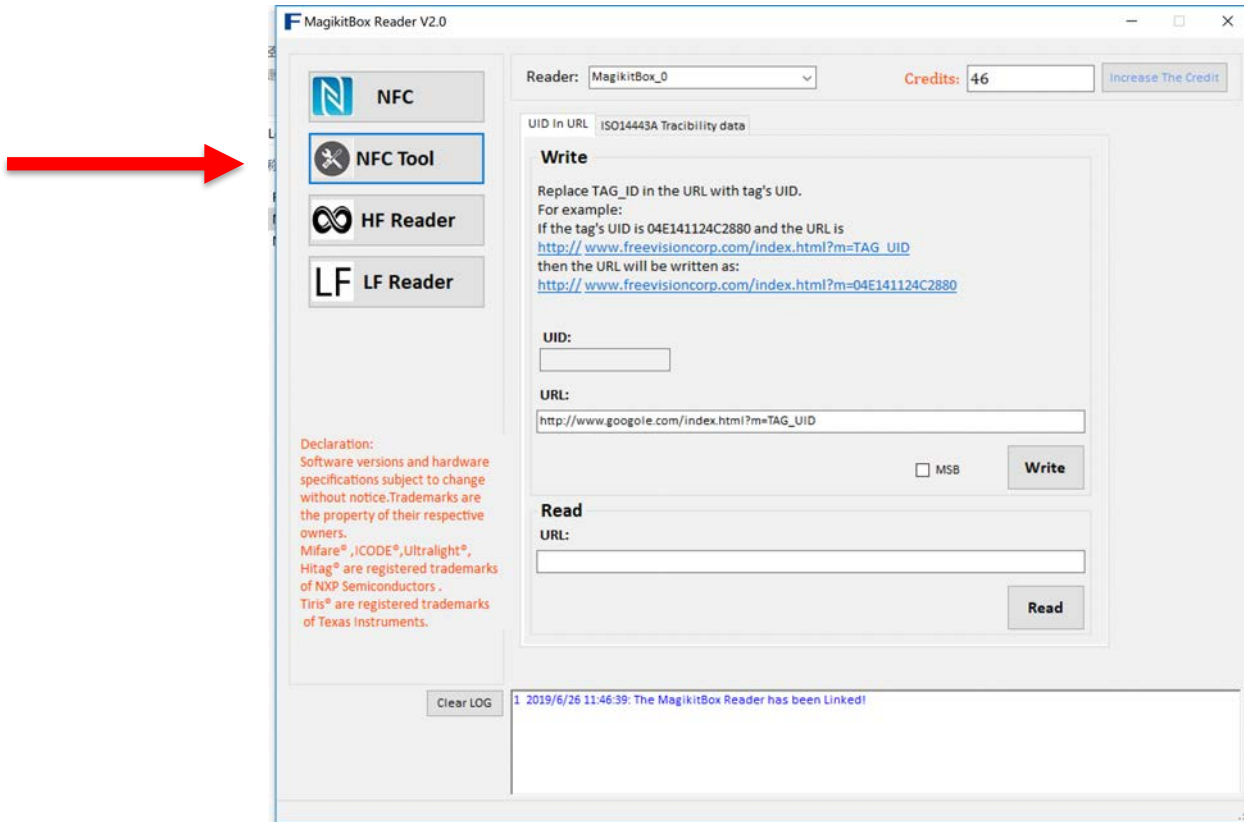
Clear LOG

1 2019/6/26 11:14:26: The MagikitBox Reader has been Linked!

2. What function do you wish to use with your NFC Tag, READ or WRITE?
 - Read
 - a) Click Read
 - b) The encoder will discover if the tag is in text format or includes URL link
 - Write
 - a) Click Write
 - b) If you have no credits you will need to add additional credits in order to program NFC Tag, please look for the “How to purchase credits” in user manual
 - c) To add text, enter your text into the text box, then click “Write”
 - d) If written successfully, will show “write successfully” in bottom text box in blue text
 - URL Link:
 - a) Add your live website link into the URL section, then click write
 - b) If written successfully, will show “write successfully” in bottom text box in blue text

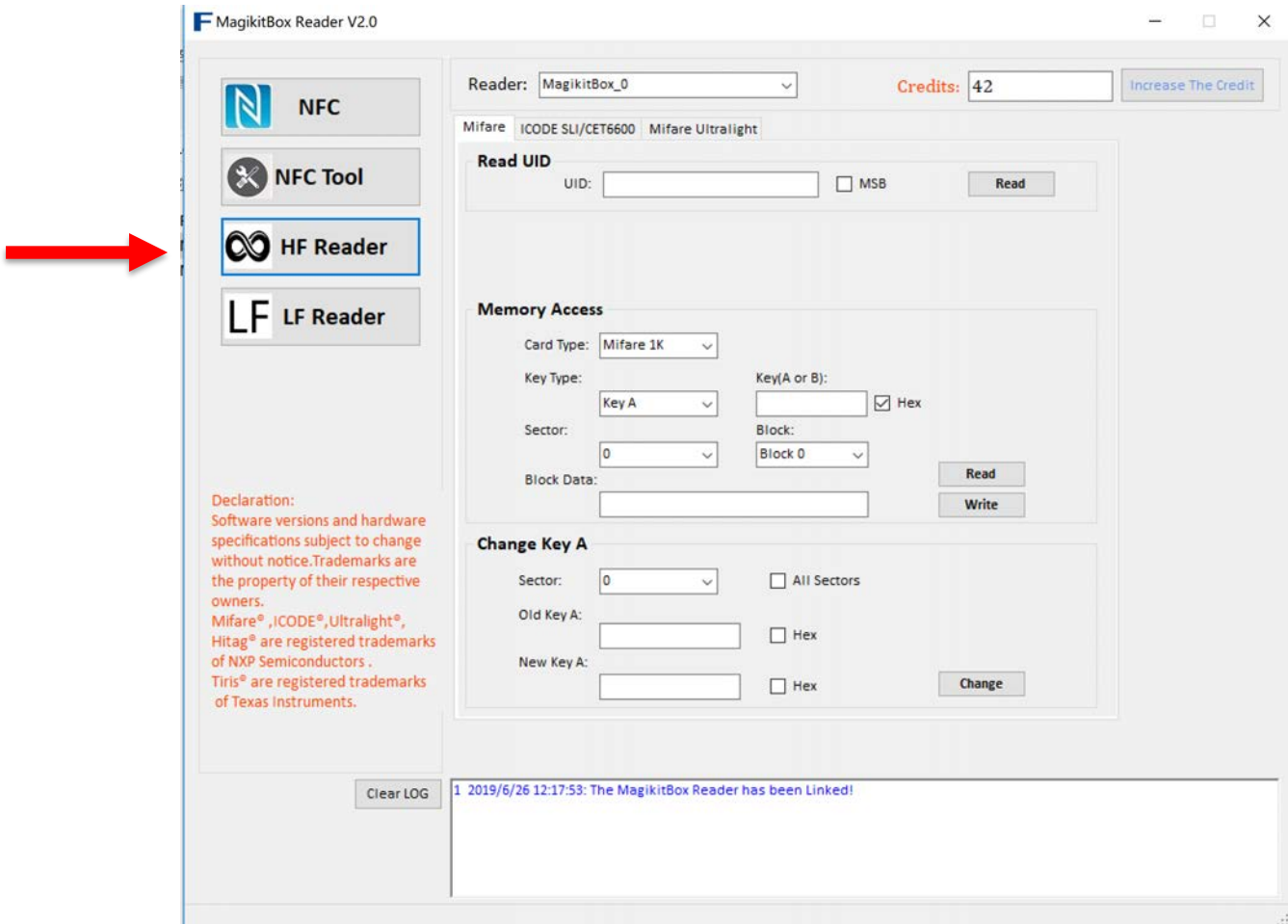
NFC TOOL

The NFC Tool section is used for unique programming situations.



1. The NFC Tool has the ability to use two specific functions
 - a. UID in URL
 - b. ISO-14443A Traceability data
2. UID in URL
 - a. First place NFC Tag on encoder
 - b. Add website to URL text box, then click on “Write”
 - c. If a live website link was provided, in the bottom text box will show “Write Successfully” in blue text
 - d. IMPORTANT*: Every time the encoded NFC Tag is read, the UID will follow after the URL link with the unique UID provided so that the user will be redirected to the specific URL each time. This function is most useful to determine if your direct URL link was used, and allows for easy tracking
3. ISO-14443A Traceability data
 - a. Write your own preferred sequence for a UID in the traceability data box, then click “Write”
 - b. In the bottom text box, will show as “Write the UID’s Successfully” in blue text

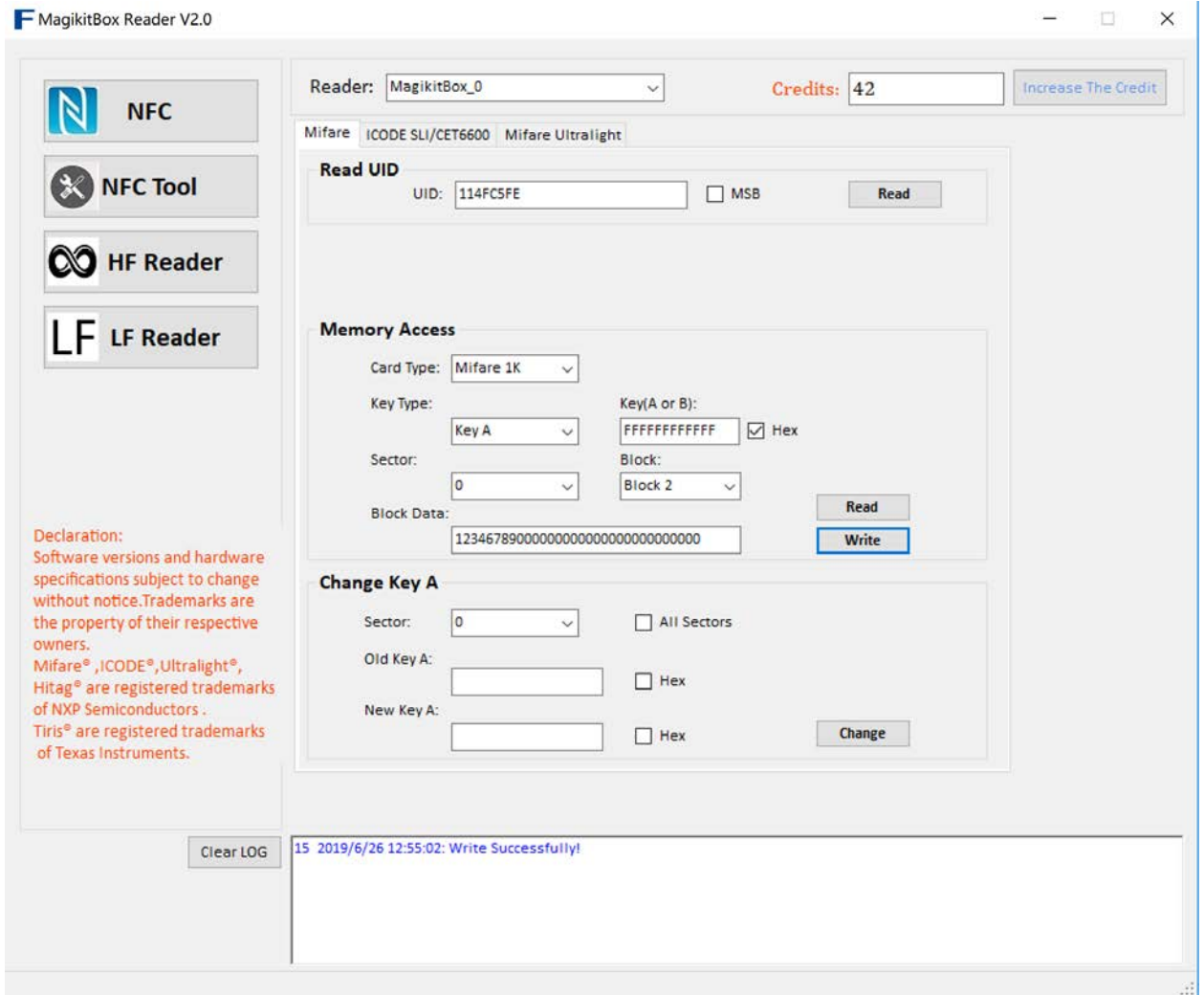
HIGH FREQUENCY READER



The High Frequency Reader can be used to read UID's of HF credentials or Write HF credentials if you have the correct memory block information. The HF reader can support Mifare, ICODE SLI/CET6600, and Mifare Ultralight. The following steps are based on Mifare credential and can be applied to the other formats.

1. Choose the best Functions that fits your needs
 - a. Read HF UID
 - b. Write/Read HF Memory block information
2. READ HF UID
 - a) Place your HF credential on the MagiKit Box, then click "Read"
 - b) The software will provide you with the UID of the HF credential
3. Write/Read HF Memory Block information
 - a) Place your Mifare credential on the MagiKit Box
 - b) Select the Card Type (1K or 4K)
 - c) Select Key Type, most common used is KEY A
 - d) Input Key Type Password, default Key Type password is usually ALL F; example: FFFFFFFFFF

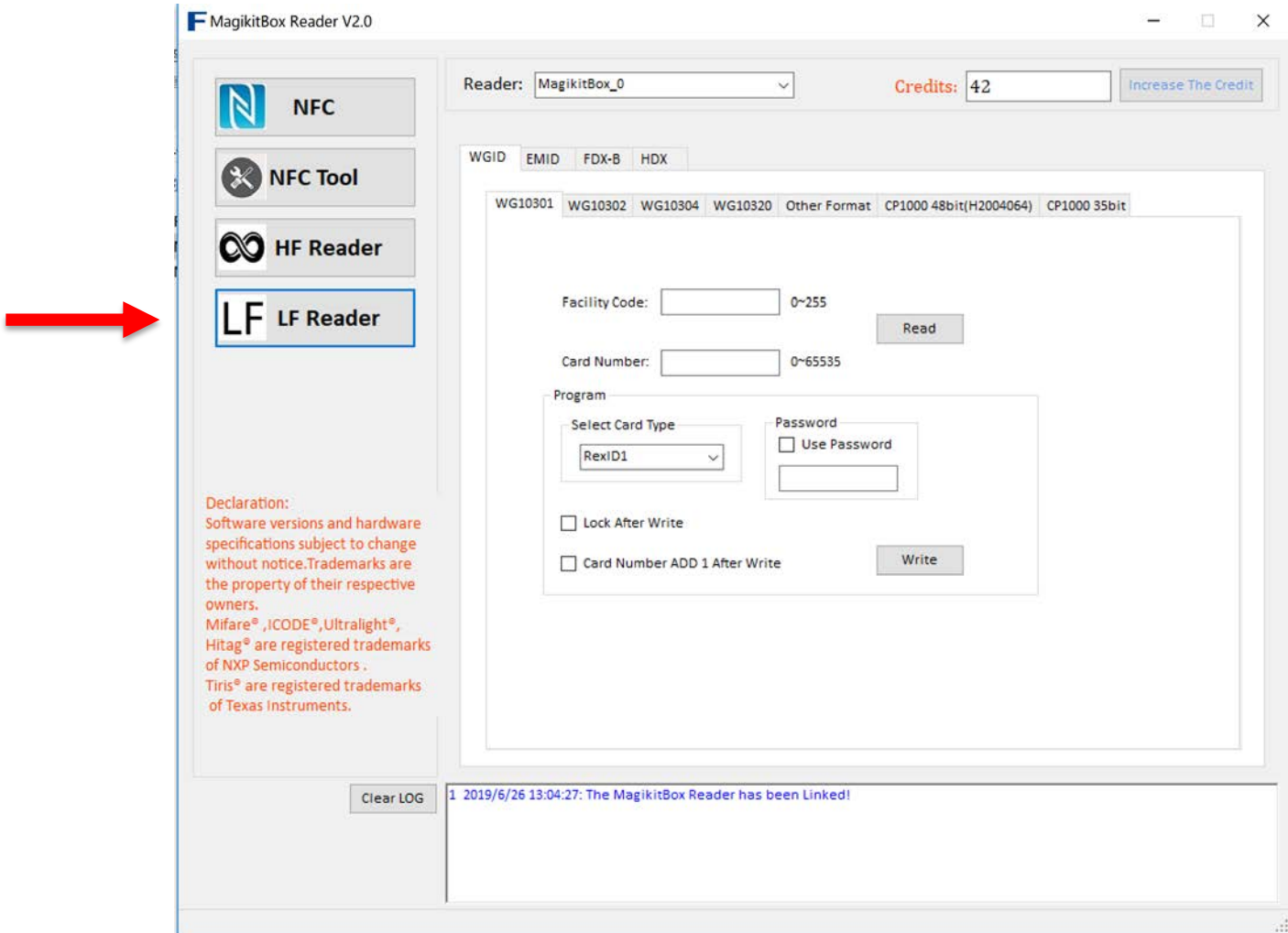
- e) Select sector number from 0-15
- f) Select block number from Block 0-3
- g) Input block data you wish to program, then click write
- h) In the bottom text box, will show as "Write Successfully" in blue text



The screenshot shows the MagikitBox Reader V2.0 software interface. On the left, there are four buttons: NFC, NFC Tool, HF Reader, and LF Reader. Below these is a declaration text. The main interface has a top bar with 'Reader: MagikitBox_0' and 'Credits: 42'. Below this, there are tabs for 'Mifare', 'ICODE SLI/CET6600', and 'Mifare Ultralight'. The 'Read UID' section shows a UID of '114FC5FE' and an 'MSB' checkbox. The 'Memory Access' section has dropdowns for 'Card Type: Mifare 1K', 'Key Type: Key A', 'Sector: 0', 'Key(A or B): FFFFFFFF', and 'Block: Block 2'. A 'Block Data' field contains '12346789000000000000000000000000'. There are 'Read' and 'Write' buttons. The 'Change Key A' section has dropdowns for 'Sector: 0', 'Old Key A', and 'New Key A', with checkboxes for 'All Sectors', 'Hex', and 'Hex'. A 'Change' button is present. At the bottom, a log entry reads '15 2019/6/26 12:55:02: Write Successfully!'.

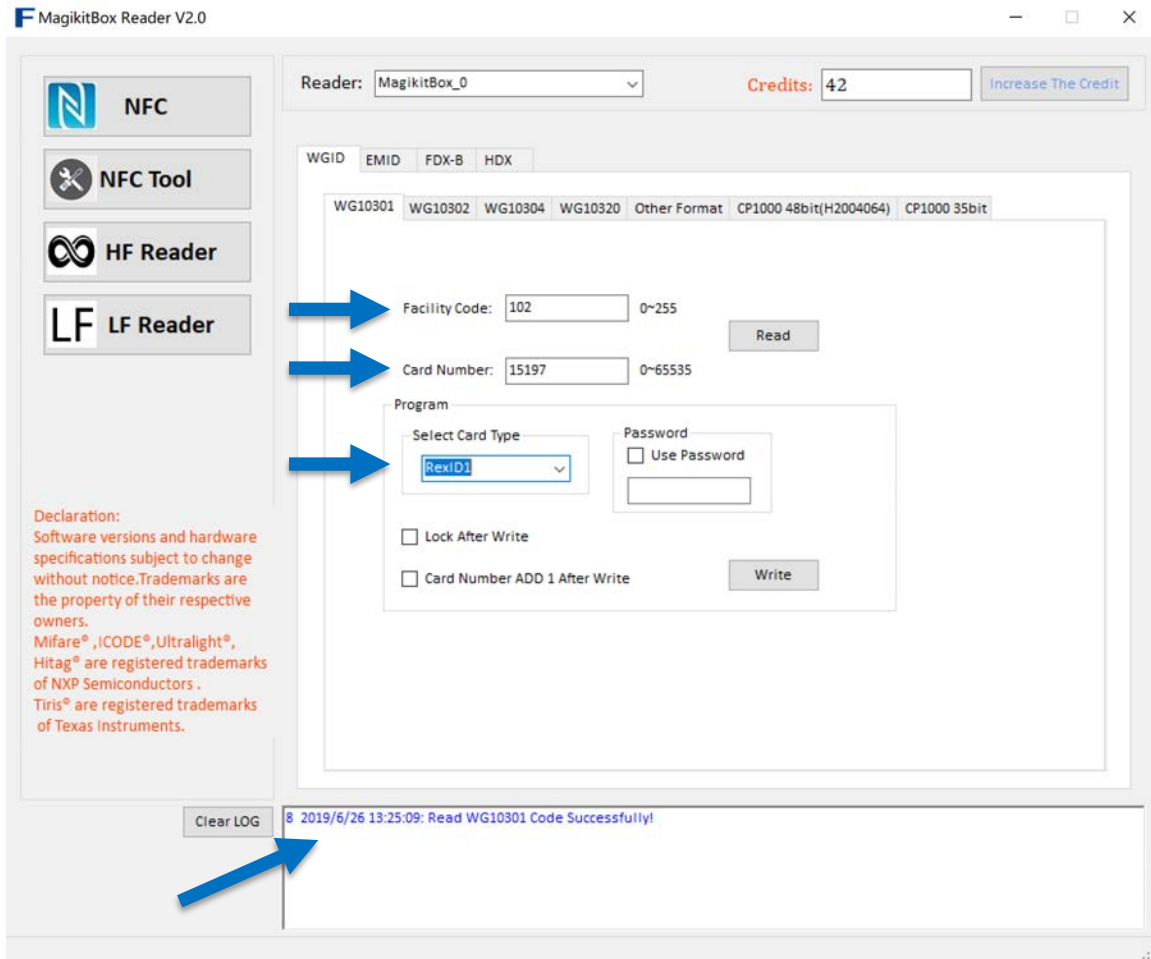
LOW FREQUENCY READER

The MagiKit Box LF reader supports popular formats of 125KHz proximity cards like Wiegand & EM ID. Wiegand most commonly refers to H103XX, which is the most popular format in USA market. EM ID refers to EM4100/4102/4200 which is the most commonly used in the European market. Below we will use a Wiegand credential as an example.



1. Place your low frequency credential on the MagiKit Box
2. Choose to Read or Write LF credential
3. Read LF Credential
 - a) The purpose of reading your low frequency credential is to identify the correct card format
 - b) We recommend you begin with the standard Wiegand bit protocol on the left side of the tabs and work your way down the different protocols until you identify the correct version. You will know you found the correct card format when you click on “READ” and the bottom text box provides you with “Read (type of format) Code Successfully” in blue text

- c) Try “Other Format” as a last resort if unable to find correct format through standard protocols



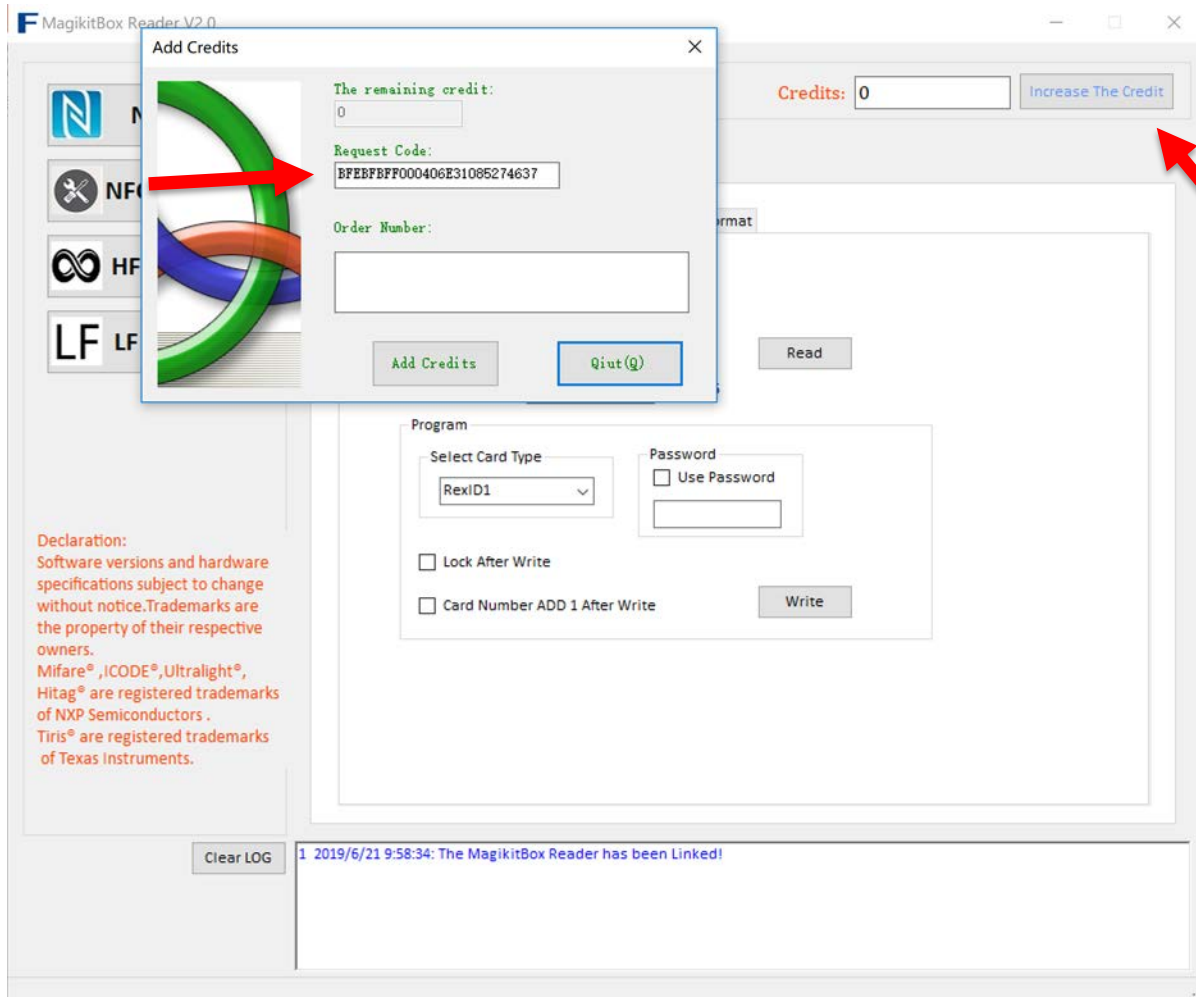
- d) Card Type, Card Number, and Facility code will be displayed if available

4. Write LF Credential

- Place credential on MagiKit Box
- Select the Card format you wish to program (example: WG10301)
- Input your custom facility code in facility code text box, numbers have to be between 0-255
- Input your custom Card Number in text box, numbers have to be between 0-65535
- Select card type most commonly used is RexID-1, then click write
- In the bottom text box, will show as “Write Successfully” in blue text

REQUEST CREDITS ADDED

To use the MagiKit Box software to program NFC Tag, NFC Tool (Traceability Data) and Low frequency credentials credits will be needed. NO CREDITS are needed to program High Frequency credentials. Please follow the steps below to add credits to your account.



1. Click on the top right hand of the screen where it says “Increase Credits”
2. Copy the request code and send it to Freevision via email
3. An email will be sent back with an order number, copy order number into the order number text box, and click “ADD CREDITS”
4. If the correct order number has been used, the bottom text box will read as “Successfully added credits.”

The screenshot displays the MagikitBox Reader V2.0 software interface. A dialog box titled "Add Credits" is open, showing the following information:

- The remaining credit: 50
- Request Code: EFEBFF000406E31085274637
- Order Number: +baluj0FBaXjf0WsiW409qSrvPCaxLLoxrxLoStIpjmGWgWyt338WwNE+Nr0+YREKZAGDlhWJ02b2LTf0xj+dWJj6rW9mCvRpoJVjzCQ=

Buttons for "Add Credits" and "Quit(Q)" are visible. In the background, the main interface shows a "Credits: 50" field and an "Increase The Credit" button. A "Program" section includes a "Select Card" dropdown menu with "RexID1" selected, and checkboxes for "Lock After" and "Card Num". A confirmation dialog box with the text "Add Credit successfully!" and a "确定" button is overlaid on the "Program" section. A red arrow points to the "确定" button. A log window at the bottom shows the message: "1 2019/6/21 9:58:34: The MagikitBox Reader has been Linked!".

**For Any questions on the User Manual please feel
free to email:**

Support@freevisiontechnologiesUSA.com

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