

# MagTek Universal SDK

**For MMS Devices**  
**EMVConfiguration Console Manual ( Linux )**

February 2024

Manual Part Number:  
DD998200579-100

REGISTERED TO ISO 9001:2015

Information in this publication is subject to change without notice and may contain technical inaccuracies or graphical discrepancies. Changes or improvements made to this product will be updated in the next publication release. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of MagTek, Inc.

MagTek® is a registered trademark of MagTek, Inc.  
MagneSafe® is a registered trademark of MagTek, Inc.  
iDynamo™, and uDynamo are trademarks of MagTek, Inc.  
eDynamo™, Dynamag, and DynaMAX are trademarks of MagTek, Inc.  
DynaProx™, DynaFlex Pro™, and DynaFlex II PED™ are trademarks of MagTek, Inc.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by MagTek is under license.

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Ubuntu® is a registered trademark of Canonical Ltd.

Microsoft®, Windows® and .NET® are registered trademarks of Microsoft Corporation.

EMV® is a registered trademark in the U.S. and other countries and an unregistered trademark elsewhere. The EMV trademark is owned by EMVCo, LLC. The Contactless Indicator mark, consisting of four graduating arcs, is a trademark owned by and used with permission of EMVCo, LLC.

All other system names and product names are the property of their respective owners.

**Table 0.1 – Revisions**

Rev Number	Date	Notes
100	February 1, 2024	Initial release

## SOFTWARE LICENSE AGREEMENT

IMPORTANT: YOU SHOULD CAREFULLY READ ALL THE TERMS, CONDITIONS AND RESTRICTIONS OF THIS LICENSE AGREEMENT BEFORE INSTALLING THE SOFTWARE PACKAGE. YOUR INSTALLATION OF THE SOFTWARE PACKAGE PRESUMES YOUR ACCEPTANCE OF THE TERMS, CONDITIONS, AND RESTRICTIONS CONTAINED IN THIS AGREEMENT. IF YOU DO NOT AGREE WITH THESE TERMS, CONDITIONS, AND RESTRICTIONS, PROMPTLY RETURN THE SOFTWARE PACKAGE AND ASSOCIATED DOCUMENTATION TO THE ADDRESS ON THE FRONT PAGE OF THIS DOCUMENT, ATTENTION: CUSTOMER SUPPORT.

### TERMS, CONDITIONS, AND RESTRICTIONS

MagTek, Incorporated (the "Licensor") owns and has the right to distribute the described software and documentation, collectively referred to as the "Software."

**LICENSE:** Licensor grants you (the "Licensee") the right to use the Software in conjunction with MagTek products. LICENSEE MAY NOT COPY, MODIFY, OR TRANSFER THE SOFTWARE IN WHOLE OR IN PART EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT. Licensee may not decompile, disassemble, or in any other manner attempt to reverse engineer the Software. Licensee shall not tamper with, bypass, or alter any security features of the software or attempt to do so.

**TRANSFER:** Licensee may not transfer the Software or license to the Software to another party without the prior written authorization of the Licensor. If Licensee transfers the Software without authorization, all rights granted under this Agreement are automatically terminated.

**COPYRIGHT:** The Software is copyrighted. Licensee may not copy the Software except for archival purposes or to load for execution purposes. All other copies of the Software are in violation of this Agreement.

**TERM:** This Agreement is in effect as long as Licensee continues the use of the Software. The Licensor also reserves the right to terminate this Agreement if Licensee fails to comply with any of the terms, conditions, or restrictions contained herein. Should Licensor terminate this Agreement due to Licensee's failure to comply, Licensee agrees to return the Software to Licensor. Receipt of returned Software by the Licensor shall mark the termination.

**LIMITED WARRANTY:** Licensor warrants to the Licensee that the disk(s) or other media on which the Software is recorded are free from defects in material or workmanship under normal use.

THE SOFTWARE IS PROVIDED AS IS. LICENSOR MAKES NO OTHER WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Because of the diversity of conditions and PC hardware under which the Software may be used, Licensor does not warrant that the Software will meet Licensee specifications or that the operation of the Software will be uninterrupted or free of errors.

IN NO EVENT WILL LICENSOR BE LIABLE FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE, OR INABILITY TO USE, THE SOFTWARE. Licensee's sole remedy in the event of a defect in material or workmanship is expressly limited to replacement of the Software disk(s) if applicable.

**GOVERNING LAW:** If any provision of this Agreement is found to be unlawful, void, or unenforceable, that provision shall be removed from consideration under this Agreement and will not affect the enforceability of any of the remaining provisions. This Agreement shall be governed by the laws of the State of California and shall inure to the benefit of MagTek, Incorporated, its successors or assigns.

**ACKNOWLEDGMENT:** LICENSEE ACKNOWLEDGES THAT HE HAS READ THIS AGREEMENT, UNDERSTANDS ALL OF ITS TERMS, CONDITIONS, AND RESTRICTIONS, AND AGREES TO BE BOUND BY THEM. LICENSEE ALSO AGREES THAT THIS AGREEMENT SUPERSEDES ANY AND ALL VERBAL AND WRITTEN COMMUNICATIONS BETWEEN LICENSOR AND LICENSEE OR THEIR ASSIGNS RELATING TO THE SUBJECT MATTER OF THIS AGREEMENT.

QUESTIONS REGARDING THIS AGREEMENT SHOULD BE ADDRESSED IN WRITING TO MAGTEK, INCORPORATED, ATTENTION: CUSTOMER SUPPORT, AT THE ADDRESS LISTED IN THIS DOCUMENT, OR E-MAILED TO SUPPORT@MAGTEK.COM.

**DEMO SOFTWARE / SAMPLE CODE:** Unless otherwise stated, all demo software and sample code are to be used by Licensee for demonstration purposes only and MAY NOT BE incorporated into any production or live environment. The PIN Pad sample implementation is for software PIN Pad test purposes only and is not PCI compliant. To meet PCI compliance in production or live environments, a third-party PCI compliant component (hardware or software-based) must be used.

**Table of Contents**

Table of Contents ..... 5

1 Introduction ..... 6

2 How to Connect to MTUSDK EMVConfiguration Console..... 7

    2.1 Connect via USB Interface ..... 7

    2.2 Connect via Serial Interface ..... 7

3 How to use the EMVConfiguration Console ..... 8

    3.1 BIN File ..... 8

    3.2 Excel File..... 9

### 1 Introduction

This document provides instructions to use the MTUSDK EMVConfiguration Console. The console sends either a .BIN file or contents of an Excel file to the device. BIN files are directly sent to the device. Excel files are processed by Magensa Remote Services web service. The resulting BIN data is sent to the device.

This document is part of a larger library of documents designed to assist Secure Card Readers implementers, which includes the following documents available from MagTek:

- ***D998200570 MAGTEK UNIVERSAL SDK PROGRAMMER'S MANUAL ( LINUX )***
- ***D998200489 DYNAPROX PROGRAMMER'S MANUAL ( COMMANDS )***
- ***D998200383 DYNAFLEX PRODUCTS PROGRAMMER'S MANUAL ( COMMANDS )***

## 2 - How to Connect to MTUSDK EMVConfiguration Console

---

### 2 How to Connect to MTUSDK EMVConfiguration Console

To connect via an interface follow these steps:

#### 2.1 Connect via USB Interface

- 1) Connect the device to the USB port of the Linux computer.
- 2) The first time, allow a moment for the host to recognize the device.
- 3) The console automatically connects to the first USB DynaProx it finds. If specified used as below.

```
-d usb://
```

#### 2.2 Connect via Serial Interface

- 1) Connect the device to the Serial port of the Linux computer.
- 2) The EMVConfiguration console accepts a device path of either usb or serial. Serial may be in one of the following formats pending on the system hardware.

```
-d serial://port=/dev/ttyS1  
-d serial://port=/dev/serial0  
-d serial://port=/dev/ttyUSB0
```

- 3) Set the appropriate device path when specifying `-d` in the command line.

## 3 - How to use the EMVConfiguration Console

---

### 3 How to use the EMVConfiguration Console

The following instructions are for using the MTUSDK Test console on a Linux operating system. In these examples, lines are removed and replaced with “. . .” for brevity.

#### 3.1 BIN File

To send an individual BIN configuration file to the device follow these steps.

- 1) After the name of the console, enter:

```
[cfg.bin] Name of the .bin file
-t      File type (excel or bin)
-i      File Id number. 8 digit file id.
        00000000  TERMINAL
        00000100  PROCESSING
        00000200  ENTRYPOINT
        00000300  CA KEYS
        00000500  AMEXDRL
```

-d Device path. Optional if using USB.

Example: Terminal configuration bin file

```
$ sudo ./emvconfiguration cfg00000000.bin -t bin -i 0000000000
```

- 2) Then press Enter key. The result is shown similar as below.

```
Connect to usb
progress (33)
progress (66)
progress (100)
result (0)
send file - 00000000 successfully
```

- 3) The console exits afterwards.



## 3 - How to use the EMVConfiguration Console

---

### 3.2 Excel File

To send an Excel configuration file to the device follow these steps. Excel may contain one or multiple configurations.

- 1) After the name of the console, enter:  
[cfg.xlsx] Name of the .excel file  
-t File type (excel or bin)  
-d Device path. Optional if using USB.

Example: Excel configuration file

```
$ sudo ./emvconfiguration cfg.xlsx -t excel
```

- 2) Then press Enter key. The EMVConfiguration console will connect to Magensa Remote Services, send the excel content for conversion into .bin format, and then send each .bin file to the device.

The result is shown similar as below.

```
Connect to usb
progress (33)
progress (66)
progress (100)
result (0)
update config - 00000000 successfully
progress (4)
progress (9)
progress (14)
. . .
result (0)
update config - 00000100 successfully
progress (4)
progress (9)
progress (14)
. . .
result (0)
update config - 00000200 successfully
progress (4)
progress (9)
progress (14)
. . .
result (0)
update config - 00000300 successfully
progress (4)
progress (9)
progress (14)
. . .
result (0)
update config - 00000500 successfully
```

- 3) The console exits afterwards.