



Remote Services App for Configuration and key injection

Installation and Operation Manual

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Table 0.1 - Revisions

Rev Number	Date	Notes
11	June 2015	Initial Release
20	June 2016	Added support for MagTek Reader Configuration Program for iOS
30	September 2016	Added support for eDynamo firmware download. Changed icons and naming conventions to match Windows and iOS versions of the MagTek Reader Configuration Program.
40	December 2017	Updated the Windows ClickOnce section and added support for Change EMV Tags and Change CAPK.
50	April 2018	Updated to support tDynamo/kDynamo/DynaWave firmware download in MagTek Reader Configuration Program for Windows ClickOnce.
60	November 2020	Added language for Locked Magensa Bundle (LMB) and MPK2. Added iDynamo 6.
70	March 2021	Added language for EMV Tag and CAPK loading using the iOS MagTek Reader Configuration app.
80	September 2022	Added language for Loading Firmware and CAPK and examples for iDynamo 6 and the iOS MagTek Reader Configuration app. Updated Magensa production key on page 61 from 9070300 to 9070200. 9070030 is ANSI Test key.

NOTICE

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MagTek, Inc. 1710 Apollo Court Seal Beach, CA 90740 562-546-6400

Purpose of the document

The purpose of this document is to provide a description of how to use the MagTek Reader Configuration Program for Remote Configuration and Key Injection for MagneSafe devices. This application is provided to MagTek Customers. Certain functions are No Charge and other functions are billable events. Please refer to the executed Remote Services Agreement and Pricing Schedule A.

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1 Overview MagTek Reader Configuration Program for Windows ClickOnce

The MagTek Reader Configuration Program is a suite of applications running on a variety of operating systems and is designed to leverage the MagTek RS2 web services, for secure key injection and device configuration of MagneSafe readers.

By running the MagTek Reader Configuration Program ClickOnce app, the user can configure their device and load keys in a secure environment.

ClickOnce is a Microsoft technology that enables the user to install and run a Windows-based smart client application by clicking a link in a web page. ClickOnce is a component of Microsoft .NET Framework 2.0 and later, and supports deploying applications made with Windows Forms or Windows Presentation Foundation

1.1 Windows System Requirements:

- Windows 7 Operating System or newer
- Internet Explorer, Firefox or Chrome
- USB Port

***Not All Configuration Options are available to all SCRAs

Configuration Options available are determined-

- By the type of SCRA being used
- By the Configuration Options provided by MagTek

***Key Loading via a Bluetooth wireless interface is not supported. This affects any wireless MagneSafe reader. Key injection for wireless readers must be done via USB using the ClickOnce version of the MagTek Reader Configuration Program.

***Certain COMMANDS require a reset of the device

• Please see the individual device's Programmer's Manual for affected Commands

2 Installation

Open your browser and navigate to the URL below.

https://rs.magensa.net/rs2/app/publish.htm

MagTek, Inc. MagTek Reader Configuration Program

Name:	MagTek	Reader	Configuration	Program
			garager	

Version: 1.4.3.1

Publisher: MagTek, Inc.

The following prerequisites are required:

Microsoft .NET Framework 4.5 (x86 and x64)

If these components are already installed, you can <u>launch</u> the application now. Otherwise, click the button below to install the prerequisites and run the application.

Install

Click the **Install** button.



During Application Install a warning will pop up.

When prompted, click the **Install** button.

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3 Login

MagTek Reader Configuration Login			×
	<u>U</u> ser Name	<u>S</u> ave Entries 🔽	× ve Entries ☑
	test.tester@magtek.com		
	Password		

	Customer Code		
SECURITY FROM THE INSIDE	001000099		
Use Public Account	<u>O</u> K	<u>C</u> ancel	

The MagTek Reader Configuration Login box will appear. Enter your User Name, Password and Customer Code provided to you by MagTek. Checking Save Entries will cache the user's credentials to streamline future login.

Press OK.

For certain "no charge" configuration related functions, the Public Account can be used by pressing the "Use Public Account" button.

4 MagTek Reader Configuration Program for Windows ClickOnce Transaction Options

Man Tek Reader Configuration - RSV21 ker			_	
File Edit Help				
			ReaderID: 19	
Device List: MagTek SCRA 1 ProductID:19	~	<u>D</u> etect	Firmware: 1000003354E00	
	<u>R</u> efresh	<u>R</u> eset	Serial Number: B123436041017AA Interface Type: 00 - HID Security Legal 02	
		Clear	DUKPT KSN: 9010010B123436000008	
Change Configuration Send Commands EMV				
Reader Config Options:				^
ActivityTimeout_2Min ~				
Change <u>C</u> onfig				
Key:				
Current Key 0000000 V				
Change <u>K</u> ey				
Firmware:				
MAIN_1000003354 E00 ~				
Download Firmware				
Loaded Script:				
Run <u>S</u> cript				
				~

The Device Info window will appear in the upper right corner of the application. It provides the following information about the attached MagneSafe Reader.

- Reader ID
- Firmware Revision
- Serial Number
- Interface Type
- Security Level
- DUKPT KSN

Device List, Refresh, Detect, Reset, and Clear buttons.

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- Device List displays a list of attached devices. Please select the target device and proceed. The Refresh button updates the list of Target Devices visible to the MagTek Reader Configuration Program.
- Detect detects the current reader attached and can be used if the reader is changed while the application is running.
- Reset performs a reset command on the reader.
- Clear erases all info in the Device Activity Info window.

4.1 Change Configuration

The Change Configuration tab can be used to change device configuration options, change Key, download firmware, and run scripts.

Change Config

To perform a configuration change, click on the **Reader Config Options** drop down list, and select the desired configuration.

MagTek Reader Configuration - RSV2User			-	Х
<u>E</u> ile <u>E</u> dit <u>H</u> elp				
Device List: MagTek SCRA 1 Produ	ctID:19 ~	<u>D</u> etect	ReaderID: 19 Firmware: 1000003354E00	
	<u>R</u> efresh	<u>R</u> eset	Serial Number: B123436041017AA Interface Type: 00 - HID	
		Clear	DUKPT KSN: 9010010B12343600023A	
Change Configuration Send Commands EMV				
Reader Config Options: MASK_4*4 ~ Change <u>C</u> onfig	ReaderID: 19 Firmware: 1000003354E00 Serial Number: B123436041017 Interface Type: 00 - HID Security Level: 03	7AA		 ^

Click the **Change Config** button. The status of the configuration option will be displayed in the Device Activity window.

MagTek Reader Configuration - RSV2User			_	×
<u>F</u> ile <u>E</u> dit <u>H</u> elp				
Device List: MagTek SCRA 1 Produc	ctID:19 ~	<u>D</u> etect	ReaderID: 19 Firmware: 1000003354E00	
	<u>R</u> efresh	<u>R</u> eset	Serial Number: B123436041017AA Interface Type: 00 - HID Security Level: 03	
		C <u>l</u> ear	DUKPT KSN: 9010010B12343600023A	
Change Configuration Send Commands EMV				
Reader Config Options: MASK_4*4 ~ Change <u>C</u> onfig	ReaderID: 19 Firmware: 1000003354E00 Serial Number: B12343604101 Interface Type: 00 - HID Security Level: 03	7AA		^
Key:	DUKPT KSN: 9010010B123436	600023A		
Current Key 0000000 ~ Change Key	Getting KSN 9010010B123436 Getting Configuration Name MA Changing Configuration To: Ma:	00023B \SK_4*4 sking to 1234*	******1234	
Firmware:	Successfully Changed> Mask	ing to 1234***	***** 1234	
BLE_1000002650 C04 ~				

It should be noted that some Configuration Changes require the device to be reset before the specific change takes effect. Therefore, it is recommended that after any Configuration Changes takes place, to press the Reset button.

Change Key

To inject a Key, click on the **Key** drop down list, and select the desired Key to inject.

Change Configuration	Send Commands	EMV	
Reader Config O	otions:	[
ActivityTimeout_2	2Min	\sim	
Kev	Change <u>C</u> ont	fig	
QwickKey Test	9011400		
	Change <u>K</u> ey	/	

Click the **Change Key** button.

Change Configuration Send Commands EMV		
Reader Config Options:	^	
ActivityTimeout_2Min ~		
Change <u>C</u> onfig Key:		
QwickKey Test 9011400 ~		
Change <u>K</u> ey		

Select Yes to continue or No to cancel the transaction when prompted that this is a billable event.



If Yes was selected, enter a Billing Reference into the dialog window. Click the **OK** button to continue.

Billing Reference		×
Billing Reference	OK Cancel	

The status of key injection will be displayed in the Device Activity Info window.

Change Configuration	Send Commands	EMV		
Reader Config O MASK_4*4	ptions:	~	Getting KSN 9010010B12343600023C Getting Key: QwickKey Test 9011400 Successfully Changed Key> the Test key for QwickKey	
Key:	Change <u>C</u> onf	īg	KCV> E3E68D6438	
QwickKey Test	9011400	\sim		
	Change <u>K</u> ey	/		

Locked Magensa Bundle (LMB) and MPK2.

If the target reader has a Magensa Production Key (MPK2), KSID 9016140 and 90700300, it will not be allowed to be changed. The target reader is part of the reader family referred to as Locked Magensa Bundle (LMB) which does not allow key changes. Attempting to change the key will result in the following message: Key cannot be updated with this device.

Please contact your MagTek representative for assistance.

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Download Firmware

The Download Firmware button may be used to update a device's firmware.

Firmware from file (tDynamo/kDynamo/DynaWave)

The following instructions detail steps for downloading the firmware from a file accessible by a PC. If the firmware is to be downloaded from RS2 Web Services, skip and proceed to the next section **Firmware from RS2 Web Services**

To download firmware, click the **Download Firmware** button.

BLE_1000002650 C03 ~	
Download Firmware	
Loaded Script:	
Run <u>S</u> cript	
v	

If the attached device is one from the list presented, select the **Yes** button.



Select the firmware file to be downloaded and click the **Open** button.

Open				×
\leftarrow \rightarrow \checkmark \uparrow \frown \rightarrow This PC \rightarrow OS (C	:) > Firmwa	re ~ ඊ	Search Firmware	م
Organize 🔻 New folder			: : : : = =	- 🔳 💡
🧊 3D Objects	^	Name	Date modified	Size Ty
🔜 Desktop		🛓 mDynamo_SDK_D_ENC_D_180411_0_001E.BIN	4/17/2018 4:20 PM	400 KB VI
Documents		🔺 mDynamo_SDK_R_ENC_R_180411_0_001E.BIN	4/17/2018 4:20 PM	399 KB VI
🖶 Downloads	- 61			
👌 Music				
Pictures				
📑 Videos				
🟪 OS (C:)	v -	c		>
File <u>n</u> ame: mDynam	no_SDK_D_EN	C_D_180411_0_001E.BIN	✓ bin files (*.bin)	~
			<u>O</u> pen ▼	Cancel

Wait for the download progress to complete. The process may take up to 2 minutes. During the download do not detach the device from the PC.

MagTek Reader Configuration - RSV2User				-	×
<u>F</u> ile <u>E</u> dit <u>H</u> elp					
Device List: B368D34 ProductID:53	57 ~	<u>D</u> etect	ReaderID: 5357 tDynamo/kDynamo/DynaWave	Bootloader	
	<u>R</u> efresh	<u>R</u> eset	Detected		
		C <u>l</u> ear			
Change Configuration Send Commands EMV					
Reader Config Options:	ReaderID: 1E				^
AvtivityTimeout_2Min ~	Firmware: 1000004238AZ0_20	180411_0			
	Interface Type: 00 - HID				
Change <u>C</u> onfig	Security Level: 03	000001			
	DUKPT KSN: 9010010B123456	000001 =========			
ANSI Test Key 9010010 V	Firmware download started It o	could take up	to 2 minutes. Please wait		
Change Key	Successfully Sent Command>	6800)	
5 = 7	0000				

The status of **Firmware loaded successfully** will be displayed in the Device Activity Info window.

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Download Firmware	Firmware loaded succressfully, ReaderID: 1E Firmware: 1000004238A20_20180411_0 Serial Number: B123456041718AA Interface Type: 00 - HID Security Level: 03 DUKPT KSN: 9010010B123456000001	*
		~

Firmware from RS2 Web Services

To download firmware, click on the **Firmware** drop down list, select the desired firmware, and click the **Download Firmware** button.

Firmware: MAIN_1000003354 E00 ~ Download Firmware Loaded Script:	
Run <u>S</u> cript	

Wait for the download progress to complete. The process may take up to 2 minutes. During the download do not detach the device from the PC.

MagTek Reader Configuration - RSV2User				_	×
<u>F</u> ile <u>E</u> dit <u>H</u> elp					
Device List: MagTek SCRA 1 ProductID:12	~	<u>D</u> etect	ReaderID: 12 Firmware: 1000002648A01		
	<u>R</u> efresh	<u>R</u> eset	Serial Number: 00 Interface Type: 00 - HID Security Level: 00		
		C <u>l</u> ear	DUKPT KSN: 00		
Change Configuration Send Commands EMV					
Reader Config Options: MASK_4*4 V Successfully S	nload started It co ent Command> 9	uld take up 104484D9	to 2 minutes. Please wait 590		^

The status of **Firmware download completed successfully** will be displayed in the Device Activity Info window.

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Firmware:	DUKPT KSN: 9011400B123436000001
MAIN_1000003354 E00 ~	
Download Firmware	Firmware: 1000003354E00 Serial Number: B123436041017AA
Loaded Script:	Interface Type: 00 - HID
Due Coriet	Security Level: 03 DUKPT KSN: 9011400B123436000001
Run <u>S</u> cript	Firmware download completed successfully
	· ·

Run Script

The Run Script button allows the user to select a file for executing configuration changes, key injection, device commands, and EMV configuration as a batch. These files will be provided by MagTek Support.

Press **File** and then **Open** or double-click inside the Loaded Script box.

MagTek Reader Configuration - F	RSV2User				-	\times
<u>F</u> ile <u>E</u> dit <u>H</u> elp						
<u>O</u> pen <u>C</u> lose	SCRA 1 ProductID:19	~	Detect	ReaderID: 19 Firmware: 1000003354E00		
Change Password E <u>x</u> it		<u>R</u> efresh	<u>R</u> eset	Serial Number: B123436041017AA Interface Type: 00 - HID		

Select the desired script file and click the **Open** button.

🧊 3D Objects	ScriptChangeConfig.MTSCRA	12/20/2017 10:04 MTSCRA File
🛄 Desktop		
Documents		
🖶 Downloads		
👌 Music		
Pictures		
🐺 Videos		
🛀 OS (C:)	~ <	>
File <u>n</u> ame: ScriptCh	angeConfig.MTSCRA	 ✓ Script files (*.MTSCRA) ✓ Open Cancel

Click the **Run Script** button to execute the defined commands. The status of the script will be displayed in the Device Activity Info window.

|--|

Below is a list of all Action Verbs:

Required parameters are identified in parenthesis. Any Line that starts with a ";" or an apostrophe will be treated as a comment and ignored. Anything other verbs will return "Unrecognized Verb"

CHANGECONFIG, (CONFIGNAME), (KSID)	Changes the config
CHANGEKEY, (KSID), (BILLING_LABEL),	Changes the Key
(PROMPT)	
SENDCOMMAND, (COMMAND_STRING)	Sends Command to Reader
RESETREADER	Resets the Reader
DETECTREADER	Detects the Reader
WHO	Displays Login Name
WHERE	Displays the computer name
DATE	Displays yyyy-MM-dd
TIME	Displays HH:mm:ss
NOW	Displays date and time in current locale
PLAYSOUND, (PATH_TO_SOUNDFILE)	Plays the specified sound
PAUSE, (Interval)	Pauses for the interval in milliseconds
ECHO, (STRING_TO_ECHO)	Echos the string to the screen
CLS	Clears the Device Activity Screen

Here is a sample script:

CLS
ECHO, ====================================
ECHO, About to Change Masking configuration option
ChangeConfig,MASK_6*4,0000000
ResetReader
ECHO,All Done

4.2 Send Commands

The Send Commands tab can be used by MagTek Support personnel to send specific commands to the MagneSafe device.

4.3 EMV

The EMV tab allows the user to select a file for configuring EMV Tags and EMV CAPK (Certification Authority Public Keys). These files will be provided by MagTek Support.

Change Tags

To change EMV Tags, click the **EMV** tab and the **Change Tags** button.

Change Configuration Send Commands EMV]	
Change <u>T</u> ags		^
Change CAP <u>K</u>		

Select the desired EMV tags file, and click the **Open** button.

3D Objects	eDynamoCAPublicKey.xml	3/23/2017 3:08 PM	XML File	32 KB
Desktop	eDynamoEMVTags.xml	3/23/2017 3:46 PM	XML File	57 KB
Documents				
🖶 Downloads				
👌 Music				
Pictures				
Videos				
" OS (C:)				
File <u>n</u> ame: eDynamoEMV	Tags.xml	~ EMV	Tag files (*.xml <u>O</u> pen	∼ Cancel

The status of **EMV Tag Update Successful** will be displayed in the Device Activity Info window.

Change Configuration Send Commands	EMV	
Change <u>T</u> ags		Updating EMV Tags, Please wait EMV Tag Update Successful
Change CAP <u>K</u>		

Change CAPK

The change CAPK, click the **Change CAPK** button.

MagTek Reader Configuration - RSV2User			-	×
<u>F</u> ile <u>E</u> dit <u>H</u> elp				
Device List: MagTek SCRA 1 Produ	ctID:19 ~	<u>D</u> etect	ReaderID: 19 Firmware: 1000003354E00	
	<u>R</u> efresh	<u>R</u> eset	Serial Number: B123436041017AA Interface Type: 00 - HID	
		Clear	DUKPT KSN: 9010010B123436000001	
Change Configuration Send Commands EMV				
Change <u>I</u> ags	Updating EMV Tags, Please wa EMV Tag Update Successful	it		 ^
Change CAP <u>K</u>				

Select the desired CAPK file, and click the **Open** button.

3D Objects	eDynamoCAPublicKey.xml	3/23/2017 3:08 PM	XML File	32 KB
🔜 Desktop	eDynamoEMVTags.xml	3/23/2017 3:46 PM	XML File	57 KB
Documents				
🕂 Downloads				
👌 Music				
Pictures				
🚆 Videos				
🛀 OS (C:)	v			
File <u>n</u> ame: eDynam	oCAPublicKey.xml	~ CAP	K files (*.xml	~
			<u>O</u> pen C	Lancel .::

The status of **CAPK Update Successful** will be displayed in the Device Activity Info window.

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MagTek Reader Configuration - RSV2User		-	×
<u>F</u> ile <u>E</u> dit <u>H</u> elp			
Device List: MagTek SCRA 1 ProductID:19 ~	<u>D</u> etect	ReaderID: 19 Firmware: 1000003354E00	
<u>R</u> efresh	<u>R</u> eset	Serial Number: B123436041017AA Interface Type: 00 - HID	
	Clear	DUKPT KSN: 9010010B123436000001	
Change Configuration Send Commands EMV			
Change Tags Updating CAPK, Please wait CAPK Update Successful	J		^
Change CAP <u>K</u>			

5 Overview MagTek Reader Configuration Program for IOS

MagTek Reader Configuration Program for iOS is a universal app that can run on an iPhone, iPod touch or iPad device and is designed to leverage the MagTek RS2 web services, for secure key injection and device configuration of MagneSafe readers.

By downloading and installing the **MagTek Reader Configuration Program** app, the user can configure their device and load keys in a secure environment.

5.1 iOS System Requirements:

- iOS 11.0 or newer
- Compatible with iPhone, iPad, and iPod touch

***Not All Configuration Options are available to all SCRAs

Configuration Options available are determined-

- By the type of SCRA being used
- By the Configuration Options provided by MagTek

***Key Loading via a Bluetooth wireless interface is not supported. This affects any wireless MagneSafe reader. Key injection for wireless readers must be done via USB using the ClickOnce version of the MagTek Reader Configuration Program.

***Certain COMMANDS require a reset of the device

• Please see the individual device's Programmer's Manual for affected Commands

6 Installation

Go to the App Store and download the MagTek Reader Configuration Program.



Download the FREE App.

6.1 Launch the app and then login

On first launch, the MagTek Remote Configuration Login box will appear. Enter your User Name, Password and Customer Code provided to you by MagTek.

Press Login.

For certain "no charge" configuration related functions, the Public Account can be used by pressing the "Use Public Account" button.



Usemame	
Password	
Customer Code	
	Login
	Use Public Account

7 Admin – Passcode Lock

7.1 Tap Admin

iPad 夺	3:24 PM 100% (C) MAGTEK
	SECURITY FROM THE INSIDE
	Reader Configuration Program
\bigcirc	Transactions
==	Reports
ξ Ω	Admin
1=	Help
	Rev: 1.0.15

7.2 Tap Passcode Lock

If the user/administrator wants to set a Passcode Lock, press Passcode Lock and assign a 4-digit passcode which will then be required every time the application is launched or brought to the foreground. If the Application Passcode is not entered correctly, the application will not open and the user will be given an error message. *Note: There is no way to recover a forgotten passcode. If the passcode lock is set to ON and the passcode is forgotten, the user must delete and reinstall the app.*

iPad ි	3:41 PM	97% 💷 📃
	MAGTEK	
	MAGTEK [®]	
	Reader Configuration Program	
Transactions		
ද්රූ Admin		
Passcode Lock		>
Card Reader		>
Print Settings		>
E Help		
	Rev: 1.0.15	

7.3 Select Set Application passcode and/or Set Function passcode

If the user/administrator wants to set a Function Passcode, press Function Passcode and assign a 4-digit passcode which will then be required every time the user attempts to initiate a transaction involving any of the selected functions. If the Function Passcode is not entered correctly, the function will not execute and the user will be given an error message.

iPad 중 🐇	2:51 PM 50)% 💷
<	MAGTEK	
	Passcode is Off	
Set Application Passcode		>
		>
Set Function Passcode		>
		>
		>

7.4 Enter your 4-digit passcode



8 Admin – Card Reader

To select the desired Card Reader, tap Card Reader

iPad 주	3:41 PM	97% 💷)
	MAGTEK	
	SECURITY FROM THE INSIDE	
	Reader Configuration Program	
Transactions		
Benorte		
Kara Admin		
Passcode Lock		>
Card Baadar		、 、
Card header		
Print Settings		>
-		
t Help		

Rev: 1.0.15

8.1 Select the desired Card Reader:

The screen will indicate the Card Reader selected by the Blue check mark. If using a wireless card reader, iOS will prompt the user to scan for the desired wireless device(s). Once a device is selected, the user will have to pair with the wireless reader. Pairing is a onetime event. This will apply to devices such as eDynamo and DynaMAX.

10:46 AM Mon Mar 22		হ 🕫 100% 💋
<	MAGTEK	
	Card Readers	
uDynamo		
iDynamo/cDynamo		
eDynamo		
tDynamo		
DynaMAX		
kDynamo/iDynamo 6		~

9 Admin – Print Settings

9.1 Select desired printing options:

For a physical audit trail of transaction activity, Tap Print Settings

iPad 令 	3:41 PM MAGTEK ®	97% 🔲
	SECURITY FROM THE INSIDE Reader Configuration Program	
Transactions		
E Reports		
ငိုင္ခ်ာ Admin		
Passcode Lock		>
Card Reader		>
Print Settings		>
Help		
	Rev: 1.0.15	

9.2 Auto Print:

If Auto Print is enabled, the MagTek Reader Configuration Program for iOS will automatically generate a log with each successful Change Configuration or Key Injection transaction.

9.3 Select the desired printer technology:

AirPrint:

A feature in Apple Inc.'s OS X and iOS operating systems for printing via a wireless LAN (Wi-Fi), either directly to AirPrint-compatible printers, or to non-compatible shared printers by way of a computer running Microsoft Windows, Linux, or OS X. AirPrint does not require printer-specific drivers.

Star Micronics:

Makes the TSP650 II and is a Bluetooth receipt-style printer.



10 MagTek Reader Configuration Program for iOS Transaction Options

Launch the App [MagTek Reader Configuration]

Tap [Use Public Account]

S		
User	name	
Pass	sword	
Cust	tomer Code	
	logn	
	Use Public Account]
)

Transaction Options

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	MAGTEK	
	MAGTEK [®] SECURITY FROM THE INSIDE	
	Reader Configuration Program	
Transactions		
Change Reader Config		>
Change Keys		>
Scripts		>
Send Command		>
Update Firmware		>
EMV Tags		>
E: Reports		
Ki Admin		
1 Help		
	Rev 136 (11)	

Under the Transactions menu, there are 6 options:

- 1. Change Reader Config:
 - a. The drop down list of Reader Config Options is based on the user's credential access. By selecting a Reader Config Option, the application will attempt to change the configuration for the given MagneSafe reader according to its description.
- 2. Change Keys:
 - a. The drop down list of Keys is based on the user's credential access. By selecting a Key, the application will attempt to inject that specific key into the MagneSafe reader.

- 3. Scripts:
 - a. The Scripts function allows the user to select a file containing multiple configuration and/or key injection related commands. To run a specific Script, select one from the drop down list. Tap a given script to execute the defined commands. These files will be provided by MagTek Support.
- 4. Send Command:
 - a. The Send Command function allows the user to send a specific command to the desired MagneSafe Reader. Please see the Command Reference manual for the desired reader the user is working with.
- 5. Update Firmware:
 - a. The Update Firmware function allows the user to load newer firmware into the target reader.
 - i. Save the updated firmware to a directory or folder you can access from the iOS device.
 - ii. Press Update Firmware
 - 1. Navigate to the folder where you have saved the firmware file.
 - 2. Select the firmware file for the desired device. This will initiate the loading process.
- 6. EMV Tags:
 - a. The EMV Tags function allows the user to load Contact and Contactless EMV Tags and CAPK files into the target reader.
 - i. Save your desired EMV Tags and CAPKs to a directory or folder you can access from the iOS device.
 - ii. Press Load EMV Tags
 - 1. Navigate to the folder where you have saved the XML files.
 - 2. Select the XML file for the desired EMV Tags. This will initiate the loading process.
 - 3. Repeat for all Contact and/or Contactless EMV Tags by brand.
 - iii. Press Load CAPK
 - 1. Navigate to the folder where you have saved the XML files.
 - 2. Select the XML file for the desired CAPK. This will initiate the loading process.
 - 3. Repeat for all desired CAPKs.

Installation and Operation Manual | Remote Services App for Configuration and key injection

10.1 Reader Config Options Tap [Reader Config Options]

Tap Reader Config Options:

A pop up introduces all Configuration options available, per account and depending on the reader. A list of available configuration options will display depending on the user's access credentials.

Tap on configuration option desired.



The resulting configuration change will be displayed in the bottom box.

iPad ි 3:3	2 PM 99% 💻
	тек С 🗏
Beader ID	N/A
Firmware	21043016C01
Sarial Number	R1465560102130A
	B140E30010213AA
Interface Type	01 - iOS Audio
Security Level	03
DUKPT KSN	9011880B146E56000019
Reset	Clear
Reader Co	nfig Options
Getting Configuration:MASK_6ZERO4 Changing Configuration To: Masking to 1234560000001234 Successfully Changed:MASK_6ZERO4	

10.2 Change Keys Tap [Change Keys]

Tap Change Keys:

A pop up list introduces all Keys that can be injected. The keys listed will display depending on the user's access credentials.

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	MAGTEK [®] Security from the inside	
	Reader Configuration Program	
Transactions		
Change Reader Config		>
Change Keys		>
Scripts		>
Send Command		>
Update Firmware		>
EMV Tags		>
E: Reports		
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⊥ ≣ Help		
	Rec 13.6.01)	

Tap the specific Key to inject:

Once the desired Key is selected, it will securely inject into the desired MagneSafe device.

Pad 주	3:34 PM	99% 💻
<	Keys Please select a Key to inject	₫ 5
Reader ID		N/A
Firmware		21043016C01
Serial Number	Default Magensa Key	B146E56010213AA
Interface Type	Current Key	01 - iOS Audio
Security Level	USAE	03
DUKPT KSN	TGATE SCRA PROD KEY	9011880B146E5600001A
Reset		Clear
	Keys	

- The user will be reminded that this function is a billable event. The user can select Yes to continue or No to cancel the transaction.
- If the user selects Yes, a Billing Reference dialog window will open and prompt the user to enter a description/reference for billing purposes. Next, press OK to continue.

The resulting key change will be displayed in the bottom box.

Locked Magensa Bundle (LMB) and MPK2.

If the target reader has a Magensa Production Key (MPK2), KSID 9016140 and 90700300, it will not be allowed to be changed. The target reader is part of the reader family referred to as Locked Magensa Bundle (LMB) which does not allow key changes. Attempting to change the key will result in the following message: Key cannot be updated with this device.

Please contact your MagTek representative for assistance.

Run Scripts

Tap [Scripts]

10:48 AM Mon Mar 22 MAGTEK®	হ 🕈 100% 🚱
Reader Configuration Program	
Transactions	
Change Reader Config	>
Change Keys	>
Scripts	>
Send Command	>
Update Firmware	>
EMV Tags	>
E: Reports	
段 Admin	
Help	

The Script function allows the user to select a file containing multiple configuration and/or key injection related commands. Once the desired file is identified, the user taps the specific Script button to execute the defined commands. These files will be provided by MagTek Support.

To create a Script, tap the New Script button and a separate window will open allowing the user to enter multiple commands. The format of this file is critical, so it is not recommended for the user to create a script without additional training from MagTek Support.

Once a Script is created, the user can Save the Script and give it a desired Name. Using the Script function in the future, will now show the newly created Script in a pop up list.

		3:37 PM	98% 🗔
<	M	AGTEK [®]	⊘ 🗏
Reader ID			N/A
Firmware			21043016C01
Serial Number			B146E56010213AA
Interface Type			01 - iOS Audio
Security Level			03
DUKPT KSN			9011880B146E5600001A
	Reset	Clear	
	NI	Nu Coriot	
	INE	w Script	
	INE	w Scipi	
	NE	w Scipi	
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		wvscrpt	
	NE	wv.Script	

10.3 Send Command

Tap [Send Command]

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SECURITY FROM THE INSIDE	
Reader Configuration Program	
Transactions	
Change Reader Config	>
Change Keys	>
Scripts	>
Send Command	>
Update Firmware	>
EMV Tags	>
Reports	
Admin	
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The Send Command function can be used by MagTek Support personnel to send specific commands to the MagneSafe device.



10.4 Update Firmware

Note: The battery should be fully charged OR connected to a power adapter before beginning update.

When using Windows: USB-C must be plugged into the computer and iDynamo 6 (lightning port) must be plugged into an iPad or iPhone so the iDynamo 6 is registered on the computer. The unit will only register on the computer if it has an Apple device connected as well. *If it fails, it may be because the boot loader (used to update firmware) may be an earlier version. In this case, it will only support updating the firmware by using our Reader Configurator app for Windows via the USB connection to the reader while the reader is connected via Lightning to an iOS device that is powered on.*

When updating on an Apple device: Download files from magtek.com or email and save locally on the device. (iPhone may not have the space for this). Save file from email to FILES (or preferred location) on iPad; *downloading to Cloud is not recommended, local download (an Apple device) recommended only.* To extract ZIP file, double tap on the ZIP file. Download all files locally to your DOWNLOAD or FILES folder.

Select [Admin] from the main menu and then select reader [kDynamo/iDynamo 6]. After you are done setting the card reader, click [<] to go back to the main menu.

Tap [Update Firmware]

10.4.1 Example showcasing iDynamo 6: firmware, Tags, and CAPK

10.4.1.1 How to Update iDynamo 6 Firmware from F0 to G0

Establish firmware is listed as [1000005557F0]

Click/Tap [Update Firmware]

In the iCloud click on the firmware file [1000005557-G0]

The file will begin to update [*Converting File, please wait*], [*Getting firmware command, please wait*] and then [Loading progress: ____%]. Please wait. It will take between 2 – 3 minutes.

Then you will see [Sending post load command] wait again about 30 seconds

Then the screen will update with a pop-up [Status Firmware loading successful]

Click/Tap [Okay]

Then confirm firmware is listed as [1000005557G0]

Verizon 穼 10 MA	:59 AM		ull Verizon 奈 ↑ 〈 MA	10:59 ам А GTEK ® С	7
Reader ID	I	N/A	Reader ID		N
Firmware	1000005557	7F0	Firmware	10000055	570
Serial Number	1	N/A	Serial Number		N
Interface Type	01 - iOS Lightn	ning	Interface Type	01 - iOS Lig	htnir
Security Level	1	N/A	Security Level		N
DUKPT KSN	1	N/A	DUKPT KSN		N
	Clear		Reset	Clear	
			Updat		

10.4.1.2 How to Downgrade iDynamo 6 firmware from G0 to F0

Establish firmware is listed as [1000005557G0]

Click/Tap [Update Firmware]

In the iCloud click/tap the folder [Downloads]

In the iCloud *Downloads* folder click/tap the folder [iDynamo 6]

In the iCloud Downloads folder click/tap the folder [Main FW iDynamo6]

In the iCloud *iDynamo 6* folder scroll down and click/tap the file [1000005557-F0]

The file will begin to update [*Converting File, please wait*], [*Getting firmware command, please wait*] and then [Loading progress: _____%]. Please wait. It will take between 2 – 3 minutes.

Then you will see [Sending post load command] wait again about 30 seconds

Then the screen will update with a pop-up [Status Firmware loading successful]

Click/Tap [Okay]

Then confirm firmware is listed as [1000005557F0]

ull Verizon 중 10: < MAC	59 AM 7 2 🖃 STEK Č 🧮	III Verizon 奈 く	10:59 AM MAGTEK ®	⊂ ∎
Reader ID	N/A	Reader ID		N/A
Firmware	1000005557G0	Firmware	1000	0005557F0
Serial Number	N/A	Serial Number		N/A
Interface Type	01 - iOS Lightning	Interface Type	01 - i	OS Lightning
Security Level	N/A	Security Level		N/A
DUKPT KSN	N/A	DUKPT KSN		N/A
Reset	Clear			
Update	Firmware			

10.4.2 How to Update and Load EMV Tags and CAPK for iDynamo 6

Select [Admin] from the main menu and then select reader [kDynamo/iDynamo 6]. After you are done setting the card reader, click [<] to go back to the main menu.

8:05	÷ 🗖
MAGTEK	
SECURITY FROM THE INSIDE	
Reader Configuration Program	
Transactions	
र्स्ट Admin	_
User Info	>
Passcode Lock	>
Card Reader	>
Print Settings	>
Help	
Bive 1.1.8 (12)	

Select [Transactions] from the main menu and then select [EMV Tags]





When the device is connected successfully and all the information (e.g. Firmware/Serial Number/Security Level/DUKPT KSN) have been populated correctly, then it is ready for loading Tags/CAPK.

4:46 Getting Info	🗢 🗭
Getting Reader Information, please	wait
Reader ID	N/A
Firmware	N/A
Serial Number	N/A
Interface Type	N/A
Security Level	N/A
DUKPT KSN	N/A
Reset	Clear
Load EMV Tag	is

To load EMV Tags, tap [Load EMV Tags] and select file (e.g. EMV Contact Tags-C) for loading.

After the first file is loaded, a pop-up window will ask [Do you want to load the previous existing file?].

Tap [**NO**].

This message will come up every new file loading. Continue to select [NO] if the file was previously loaded, then select the new file to upload.

Repeat until all files are loaded.

10.4.2.1 How to Update CAPK for iDynamo 6

Download of CAPK files to local device is recommended.

To load CAPK, tap [Load CAPK] and select file (e.g. EMV Contact CAPK-A1) for loading.

Tap [Load CAPK]

It will ask [Do you want to load the previous existing file?].

Tap [NO].

Tap the folder **[Downloads**] > Tap the folder **[iDynamo 6**] Tap the folder **[Select the Processor]** (If this is where you have saved your files locally).

		E 3
Downloads	Tags and CAPK	Cancel
Q Search		Ŷ
_	=	=
MEX CAPK-A1 3/26/20	AMEX EMV TAGS6-C0	DISCOVER CAPK-A1
2 KB	3/26/20 16 KB	3/26/20 2 KB
DISCOVER	EMV Contact	EMV Contact
EMV TAGS-A0 3/26/20	3/26/20	Tags-C0 3/26/20
17 KB	3 40	DO ND
—	—	—
MASTERCARD CAPK-A1	MASTERCARD EMV TAGS-A0	VISA CAPK-A1 3/26/20
3/26/20 2 KB	3/26/20 86 KB	2 KB
Becents		Browse
1000113		-

Then tap on the files you wish to load. For example,

Tap on [Magensa First Data-...50-A1] (Visa CAPK)

Tap on [Magensa First Data-...33-A1] (Amex)

Tap on [Magensa First Data-...51-A1] (Discover)

Tap on [Magensa First Data-...70-A1] (EMV Contact)

Tap on [Magensa First Data-...32-A1] (MasterCard)

The Screen will show [Getting EMV commands ...]

Screen will show long encrypted data set of numbers and letters and "Getting Extended Response: 00000000"

First Data Configuration file PNs

Visa: CFG0004750

Amex: CFG0004733

Discover: CFG0004751

EMV Contact: CFG0004770

MasterCard: CFG0004732

Continue to tap [Load CAPK] until all necessary files have been loaded.

11 Reports

11.1 Tap Reports

To view transaction logs tap [Reports]

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	MAGTEK	
	MAGIEK	
	SECURITY FROM THE INSIDE	
	Reader Configuration Program	
 Transacti 	ions	
Baparta		
E Reports		
Admin		
📕 Help		

Next, tap Transaction Logs

iPad 후	3:39 PM 9	8% 🗩
	MAGTEK	
	Reader Configuration Program	
Transactions	S	
Reports		
Transaction Logs		>
င်္သြား Admin		
其 Help		

11.2 A log file of configuration and key changes appears.

Tap any event for its details. There is a date and transaction filter available to streamline finding certain transactions by a specific date or transaction type. All configuration changes are identified by a C inside a circle. All key changes are identified by a K inside a circle.

iPad 🦘	F					3:39 P	м							98% 🗩
<						MAGT	EK⁼							Ŵ
						Q								
8 sat may	29 sun 30 mon 31 tue may may may	01 _{WED}	02 THU JUNE	03 fri June	04 sat June	05 sun june	06 _{MON} JUNE	07 tue June	08 _{WED} JUNE	09 thu June	10 fri June	11 sat JUNE	12 sun JUNE	13 _{MON} JUNE
C	Date: 2016-06-13 3:32:13 Serial Number: B146E56010213AA													
\bigcirc	Date: 2016-06-13 3:31:22 Serial Number: B146E56010213AA													
C	Date: 2016-05-25 4:08:15 Serial Number: B146E560102134A													
Ô	Date: 2016-05-25 4:07:58 Serial Number: B146E560102134A													
Ô	Date: 2016-05-25 4:07:32 Serial Number: B146E560102134A													
C	Date: 2016-05-25 4:07:14 Serial Number: B146E56010213AA													

Below is an example of a Configuration Change where the Track 1 and 2 Masking was "successfully" changed to 6, Zero4.

iPad হি	3:40 PM MAGTEK ®	98%
1 06-13-2016 at 3:32 PM 2 Username: Chris.brown@magtek.com 3 Serial Number: B146E56010213AA		
 Setting configuration: MASK_62ER04 Configuration set successfully 		

	12	2 Help – FAQs		
For F	12 reque	2.1 Tap Help ntly Asked Questions, tap Help		
	iPad ବ		3:24 PM 100%	
	Ċ	Transactions		
	==	Reports		
	₹Ĝ ₽	Admin		
	1	Help		

Next, Tap FAQs

iPad 주 🐇	3:14 PM MAGTEK ®	45% 💷)
	Reader Configuration Program	
Transactions		
Reports		
င်္ခြို့ Admin		
Help		
FAQs		>
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iPad ᅙ 🕸			3:14 PM	4		45% 💷
<						× 🖞
MAG SECURITY FRO	TEK [®]	Industries	Products	Services	Support	
	Remo	te Servie	ces Sup	port		
	MANUALS	SOFTWA	RE	PAQ	VIDEOS	
	 What N Configurat iDynamo uDynamo DynaMA eDynamo cDynamo tDynamo kDynamo 	MagTek devices tion program?	s are supporte	ed using the iOS	Reader	

FAQs will appear. Scroll down to look for answers to commonly asked questions.

13 FAQs

For an up to date and complete list of Frequently Asked Questions, please visit <u>https://www.magtek.com/support/remote-services?tab=faq</u>

What functions can be performed using the MagTek Reader Configuration Program for iOS?

Reader configuration changes based on User Credential permissions (see Remote Services Boarding). Key changes based on User Credential permissions (see Remote Services Boarding).

Send individual Device Commands based on the specific MagTek Device's Programmer's Reference Manual.

Update target device Firmware.

Run Scripts which can execute one or multiple device commands as a batch (based on the specific MagTek Device's Programmer's Reference Manual).

Load EMV Tags and CAPK required by the POS and Processor.

Update target device Firmware.

What functions can be performed using the MagTek Reader Configuration Program for Windows (ClickOnce)?

Reader configuration changes based on User Credential permissions (see Remote Services Boarding). Key changes based on User Credential permissions (see Remote Services Boarding).

Send individual Device Commands based on the specific MagTek Device's Programmer's Reference Manual.

Update target device Firmware.

Run Scripts which can execute one or multiple device commands as a batch (based on the specific MagTek Device's Programmer's Reference Manual).

Change EMV Tags and CAPK required by the POS and Processor.

Change EMV Configuration required by the POS and Processor.

What interfaces are supported using the MagTek Reader Configuration Program for iOS?

iOS Lightning

iOS 30 PIN

Audio Jack

Wireless

What interfaces are supported using the MagTek Reader Configuration Program for Windows (ClickOnce)? USB, Serial, MICRSafe VCOM

What MagTek devices are supported using the MagTek Reader Configuration Program for iOS?

uDynamo iDynamo/cDynamo eDynamo DynaMAX tDynamo

kDynamo/iDynamo 6

What MagTek devices are supported using the MagTek Reader Configuration Program for Windows (ClickOnce)?

BulleT

Dynamag

DynaPAD

DynaMAX

eDynamo

uDynamo

tDynamo

kDynamo

DynaWave

MICRSafe

What version of iOS is required to run the MagTek Reader Configuration Program for iOS?

iOS 11.0 or newer

What version of Windows is required to run the MagTek Reader Configuration Program for Windows (ClickOnce)?

Windows 7 Operating System or newer

14 Glossary

- DES Data Encryption Standard
- DUKPT Derived Unique Key per Transaction
- KSN Key Serial Number
- PCI DSS Payment Card Industry Date Security Standard
- SCRA Secure Card Reader Authenticator
- Security Level MagneSafe level of security
- Triple DES/3DES Triple Data Encryption Standard
- CAPK Certification Authority Public Key
- LMB Locked Magensa Bundle
- MPK2 Magensa Production Key, KSID 9016140 and 9070020
 - o ANSI TEST Key 9070030
- CAPK Certificate Authority Public Key