

iDynamo6 / tDynamo

How to Perform a Remote Firmware and IPEK Key Update Using the MagTek Reader Configuration Tool

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Table 0.1 – Revisions

Rev Number	Date	Notes
10	January 3, 2023	Initial release

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1 Introduction

This document lays out the procedures for using MagTek's Reader Configuration Tool to perform a remote firmware update, and remote IPEK Key update. For additional support, contact MagTek Support Services.

2 Downloads and Applications

- 1. Click here to download the MagTek Remote Service application for firmware update
- 2. Open the Magtek Reader Configuration Application. No login is required for firmware updates.
- See Figure 1 MagTek Reader Configuration Login
- 3. Click Use Public Account

MagTek Reader Configuration Login		X
	<u>U</u> ser Name	Save Entries
	Password	
SECURITY FROM THE INSIDE	<u>C</u> ustomer Code	
Use Public Account	<u>O</u> K	<u>C</u> ancel

Figure 1 - MagTek Reader Configuration Login

Once a successful connection has been established, the reader information will be displayed as seen in **Figure 2 - Reader Information: Change Configuration Tab.**

lagTek Reader Configuration - DEV				
<u>Eile Edit Option H</u> elp				
Device List: B506FFF ProductID:1E	•	Detect	ReaderID: 1E Firmware: 1000004238A02	
	Refresh	<u>R</u> eset	Serial Number: B506FFF031319AA Interface Type: 00 - HID	
		Clear	 Security Level: 03 DUKPT KSN: 9015140B506FFF00000C 	
Change Configuration Send Commands EMV				
Reader Config Options:	ReaderID: 1E			*
ActivityTimeout_2Min •	Firmware: 1000004238A02 Serial Number: B506FFF031319A/			
Change <u>C</u> onfig	Interface Type: 00 - HID Security Level: 03 DUKPT KSN: 9015140B506FFF00	000C		
Bennett MSR Prod Key 9504040 -				
Change Key				

Figure 2 - Reader Information: Change Configuration Tab

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3 Firmware Update

The following steps describe how to remotely update firmware.

a. Click the "Download Firmware" button, a popup window will appear. Figure 3 -

- Download Firmware.
- b. Click Yes
- c. Select the new firmware file

MagTek Reader Configuration - DEV				
<u>File Edit Option H</u> elp				
Device List: B506FFF ProductID:1E	•	Detect	ReaderID: 1E Firmware: 1000004238A02	
	Refresh	Reset	Serial Number: B506FFF031319AA Interface Type: 00 - HID	
		Clear	DUKPT KSN: 9015140B506FFF00000C	
Change Configuration Send Commands EMV				
Reader Config Options: ActivityTimeout_2Min Change Config Key: Bennett MSR Prod Key 9504040 Change Key Firmware: eDynamo Firmware-1000003354-G(Download Firmware Loaded Script: Run Script	ReaderID: 1E Firmware: 1000004238A02 Serial Number: B506FFF031319A/ Interfac UUKPT UUKPT Are you using tDynam	A o/kDynamo/DynaW Yes	/ave?	*

Figure 3 - Download Firmware

le Edit Option Help			
Device List: B368D34 Pr	oductID:5357	<u>D</u> etect	ReaderID: 5357 tDynamo/kDynamo/DynaWave Bootloader Detected
	<u>R</u> efresh	n <u>R</u> eset	
		Clear	
Change Configuration Send Comman	nds EMV		
Reader Config Options: ActivityTimeout_2Min Key:	ReaderID: 1E Firmware: 1000004238A02 Serial Number: B506FFF03 Interface Type: 00 - HID Security Level: 03 DUKPT KSN: 9015140B50	1319AA 6FFF00000C	
Bennett MSR Prod Key 950 Char Firmware:	04040 Firmware download started. nge Key Successfully Sent Comman 0000 Output	It could take up to 2 d> 6800	2 minutes. Please wait
eDynamo Firmware-100000	3354-G(▼ ReaderID: 5357 tDynamo/kDynamo/DynaW	ave Bootloader Dete	cted
Download Fir	rmware ReaderID: 5357 LDynamo/kDynamo/DynaW	======================================	cted
Run	Successfully Sent Comman 0000	d> 6000	

Figure 4 - Firmware Download in Progress

MagTek Reader Configuration - DEV			
Eile Edit Option Help			
Device List: B368D34 ProductID:5357	•	<u>D</u> etect	ReaderID: 5357 tDynamo/kDynamo/DynaWave Bootloader Detected
	Refresh	<u>R</u> eset	
		Clear	
Change Configuration Send Commands EMV			
Reader Config Options: 0000			
ActivityTimeout_2Min ReaderIC Change Cont g): 5357 /kDynamo/DynaWave Bo	otloader Detec	
Key: ReaderIL Bennett MSR Prod Key 9504040): 5357 /kDynamo/DynaWave Bo	otloader Detec	ted
Change Key Success Firmware:	fully Sent Command> 6	000	
eDynamo Firmware-1000003354-G(- Success 0000	fully Sent Command> 6	200	
Loaded Script:	fully Sent Command> 6	600	
Run Script Success	fully Sent Command> 6	700	
Firmware	loaded successfully.		

Figure 5 - Firmware Downloaded

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- d. The Reader data has been reset after firmware has been loaded successfully, see **Figure 5 Firmware Downloaded**.
- e. Send command 00013A to fetch firmware ID on the Send Commands tab.

MagTek Reader Configuration - magensars@magtek.com			-	×
<u>F</u> ile <u>E</u> dit <u>O</u> ption <u>H</u> elp				
Device List: B520B7A ProductID:1F	~	<u>D</u> etect	ReaderID: 1F Firmware: 1000004299EZ0-12312019	
	<u>R</u> efresh	<u>R</u> eset	Serial Number: B520B7A121521AA Interface Type: 00 - HID Socurity Lovel: 03	
		C <u>l</u> ear	DUKPT KSN: 9011880B520B7A000057	
Change Configuration Send Commands EMV Send Command				
Command 00013A				
Response 1000007504C0(null)				
Send Command Convert to	ASCII	ear		

Figure 6 - Send Commands Tab

4 IPEK Key Update

To update the IPEK Key, it must be changed. The following steps describe how to change the key which will automatically set the encryption counter field to 1.

a. Click Use Public Account

MagTek Reader Configuration Login		×
	<u>U</u> ser Name	<u>S</u> ave Entries
	<u>P</u> assword	
SECURITY FROM THE INSIDE	<u>C</u> ustomer Code	
Use Public Account	<u>о</u> к	<u>C</u> ancel

Figure 7 - MagTek Reader Configuration Login

- a. Select the correct key from the pulldown menu see Figure 8 IPEK Key Prior to Change.
- b. Click Change Key See Figure 8 IPEK Key Prior to Change.

Taglek Reader Configuration - magen	ars@magtek.com - version 1.5.13.2	
Device List: MagTek SCR	A 1 ProductID:1C v	ReaderID: 1C Reader Firmware: 00
Progress:	Reset Detect Refresh	Main Firmware: 1000007169D0 Serial Number: B5204AA120221AA Interface Type: 00 - HID Security Level: 03 D <mark>UKPT KSN: 9011880B5204AA000005</mark>
Change Configuration Send Comm	ands EMV	
Reader Config Options:	ReaderID: 1C	2010
ActivityTimeout_2Min Change Key: Current Key 0000000 Chan Firmware: BLE_1000002650 C04 Download Fir	Main Firmware: 1000007169D0 Serial Number: B5204AA120221AA Interface Type: 00 - HID Security Lever 03 DUKP T KSN 001188085204AA000005 V V Ware	
Loaded Script:		
		Clear

Figure 8 – IPEK Key Prior to Change

- c. Click Yes to continue see Figure 9 Change Key Confirmation.
- d. Click **OK** when the next prompt appears

1	This is a billable event	×	
	Are you sure you want to continue?		
	Yes No		

Figure 9 - Change Key Confirmation

e. Once the key is changed, the encryption counter field is reset to 1 as seen in Figure 10 - Successful IPEK Key Change.

4 - IPEK Key Update

File Edit Option Help Device List: MagTek SCRA 1 ProductID:1C Product: IDynamo Gen II Reset Detect Refresh Progress: Difference Difference Change Configuration Send Commands EMV
Device List: MagTek SCRA 1 ProductID:1C Reset Detect Refresh Progress:
Reset Detect Refresh Progress:
Progress: DUKPT KSN: 9011880B5204AA000001 Change Configuration Send Commands EMV
Change Configuration Send Commands EMV
Reader Config Options: ReaderID: 1C Reader Firmware: 1000004299EZ0-12312019
ActivityTimeout_2Min v Main Firmware: 1000007169D0 Serial Number: B5204AA120221AA
Key: Interface Type: 00 - HID Security Level: 03 DUKPT KSN: 9011880B5204AA000005
Default Magensa Key 9011880 ~ Getting KSN 9011880B5204AA000005 Getting KSN 9011880B5204AA000005
Change Key Successfully Changed Key -> Default Magensa Key KCV -> AEE73B2667
Firmware:
BLE_1000002650 C04 Reader Firmware: 1000004299EZ0-12312019 Main Firmware: 1000007169D0
Download Firmware Serial Number: B5204AA120221AA Interface Type: 00 - HID
Loaded Script: Security Level: 03 DUKPT KSN: 9011880B5204AA000001
Run Script
Clear

Figure 10 - Successful IPEK Key Change