

oDynamo, DynaWave

MAGTEK EMV CONFIGURATION SOFTWARE INSTRUCTION Document Number D998200314-10

1	About This Document	2
2	How to connect to the Device	2
3	How to View EMV Tags	3
4	How to Verify EMV Tags	5
5	How to View EMV CA Public Keys	7
6	How to Verify EMV CA Public Keys	8

Table 1.1 - Revisions

Rev Number	Date	Notes
10	June 11, 2019	Initial Release



1 About This Document

This document describes how to use the MagTek EMV Configuration application to verify the EMV configuration on a MagTek oDynamo and DynaWave connected to a host PC via USB interface.

2 How to connect to the Device

This section will demonstrate how to use the MagTek EMV Configuration application on an oDynamo and DynaWave.

- 1) Connect the device to the host PC via USB cable.
- 2) Power cycle the device. Wait until the status LED is steady Green in color.
- 3) Press the **Open** button to connect to the device. The software will display the **Serial Number** and **Firmware Version**.

📧 MagTek EMV Co	_	×			
Connect a devi	ice and click open to start	Open	Close		
Serial Number:	1111000005000145	Firmware Version:	100000000-B7-DEV		



3 How to View EMV Tags

This section will demonstrate how to view EMV tags.

1) After the device is already open, press on the **EMV Tags** tab, select a **Database**, select a **Slot**, select a tag type from the list, and press the **Send** button.

MagTek EMV Configuration 1.0.0.0			_		×
Connect a device and click open to start	Open	Close			
Serial Number: 1111000005000145	Firmware Version:	100000000-B7-DEV			
EMV Tags CA Public Key					
Database: Contact v — Slot: 1 v –	Get All Terminal Tags	∽ Send		Clear Re	sult
TagList or TLV: Verify Filter: Tag Length Value Description	Get All Terminal Tags Get Terminal Tag Get All Application Tags Get Application Tag Get All DRL Tags Get DRL Tag				

2) A list is displayed in columns of Tag, Length (decimal), Value (hexadecimal), and Description.

Filter:				
Tag	Length	Value	Description	Ī
DFDF21	1	10	Number of Applications	
5F2A	2	0840	Transaction Currency Code	
5F36	1	02	Transaction Currency Exponent	
5F57	1	00	Account Type	
DFDF5B	1	0C	Terminal Capability Purchase	
DFDF5C	1	02	Terminal Capability CashBack	
DFDF75	1	0C	Terminal Capability Inquiry	
DFDF76	1	0C	Terminal Capability Transfer	
DFDF6E	1	0C	Terminal Capabilities for Payment Transaction	
DFDF7E	1	0C	Terminal Capability Cash Advance	
DFDF7F	1	0C	Terminal Capability Cash Manual	
9F15	2	3030	Merchant Category Code	
9F16	7	3030303030303030	Merchant Identifier	

3) To view a subset from the result list, enter either a Tag, Value, or Description into the **Filter** input box. Below are examples of searching for the tag "dfdf16" and description "max size".

Filter:	dfdf16		
Tag	Length	Value	Description
DFDF	16 4	000000	080 Issuer Script Max Size



Filter:	max size			
Tag	Lengt	h Value	Description	
DFDF1	6 4	00000080	Issuer Script Max Size	

4) To view specific tags, select a tag type without "All" in its description, enter a Tag value or list of values without spaces, then press the **Send** button. Below is example result of getting tags DFDF02 and DFDF16.

EMV T	ags CA	Public Key		
Databa	se: Conta	ict v —	Slot: 1 v – Get Terminal Tag v Send	Clear Result
TagList	or TLV: df	df02dfdf16	5 Verify	
Filter:				
Tag	Length	Value	Description	
DFDFC	02 97	9ADFDF28	Authorization Reques	
DFDF1	64	0000080	Issuer Script Max Size	



4 How to Verify EMV Tags

This section demonstrates how to verify the device against an EMVTag xml file. An EMVTag file contains an array of tags. Only tags listed in the EMVTag file are compared against the device.

1) Press the **EMV Tags** tab and press the **Verify** button.

EMV Tags CA Public Key	
Database: Contact ~ Slot: 1 ~ Get All Terminal Tags ~ Send TagList or TLV:	Clear Result
Verify	

2) Select the EMV tags file to be compared with the device, and press the **Open** button.

Open		×
← → × ↑ 📙 « OS (C:) → MagTekEMVConf	iguration v 👌 Search MagT	ekEMVConfigura 🔎
Organize 🔻 New folder		::: • 🔟 ?
> 🖈 Quick access	Name	Date modified
	MagTekEMVConfiguration.exe	6/7/2019 8:42 AM A
> Desktop	MTCMSNET.dll	3/6/2019 9:12 AM A
	MTSCRA.dll	6/6/2019 11:01 AM
	📓 TagDesc.xml	6/3/2019 4:59 PM
	📔 TerminalTagsAll.xml	6/10/2019 4:03 PM
	📓 TerminalTagsOne.xml	6/10/2019 4:05 PM
	< .	>
File name: TerminalTagsAll ym		~
Terrinaragsaixin		
	<u>O</u> pen	Cancel

3) The status of the verification will be displayed. Each mismatched tag is shown as: Error Item [Tag] -> [ValueFromFile]

Example: Successful verification.

Load Tags from C:\MagTekEMVConfiguration\TerminalTagsAll.xml	
compare rags with calinagieken v configuration (reminariags all xml success)	

Example: Failed verification. Value in device is 0000080.



Load Tags from C:\MagTekEMVConfiguration\TerminalTagsAll.xml Compare Tags with C:\MagTekEMVConfiguration\TerminalTagsAll.xml Failed! Error Item : DFDF16 -> 00000040



5 How to View EMV CA Public Keys

This section demonstrates how to view Certificate Authority Public Keys (CAPKs) on a device.

1) Press on the **CA Public Key** tab, select a **Database**, and press the **Send** button.

EMV Tags	CA Public Ke		
Database	ExpressPa v	Operation: Read All · Verif	у
Slot RID	Contact	Exponent Modulus	
	PayPass		
	PayWave		
	ExpressPay		
	D-PAS		

2) A list of CAPKs will be shown along with the status of the operation.

EN	IV Tags	CA P	ublic I	Key							
Dat	abase:	Express	sPa; ∽	-	Operation:	Read All		~	Send		Verify
Slo	t RID		Index	Keyl	Exponent N	lodulus					
1	A0000	00025	03	03	E	30C2C6E2A6386	933CD17C239496	BF48C5	7E389164F2A96BFF133439AB	8A77B20498BD4DC695	9AB0C2D05D0723A
2	A0000	00025	OE	03	4	AA94A8C6DAD2	4F9BA56A27C09B	010208	19568B81A026BE9FD0A3416	CA9A71166ED5084ED9	ICED47DD457DB7E
3	A0000	00025	OF	03	C	C8D5AC27A5E1F	B89978C7C6479A	F993AB	3800EB243996FBB2AE26B67	B23AC482C4B746005A5	1AFA7D2D83E894F
4	A0000	00025	10	03	(CF98DFEDB3D37	27965EE77977233	355E075	51C81D2D3DF4D18EBAB9FB9	D49F38C8C4A826B99D	C9DEA3F01043D4B
<											>
Rea	Read All from database (ExpressPay)										
Read All from database (ExpressPay) -> Done											
\sim											



6 How to Verify EMV CA Public Keys

This section demonstrates how to verify the device against an EMVCAPK xml file. An EMVCAPK file contains an array of Certificate Authority Public Keys. Only CAPKs listed in the EMVCAPK file are compared against the device.

1) Press the **CA Public Key** tab and press the **Verify** button.

EMV Tags CA Public Key						
Database: Contact ~ — Operation: Read All ~ Send	Verify					
Slot RID Index KeyExponent Modulus CheckSum						

2) Select the EMVCAPK xml file to be compared with the device, and press the **Open** button.

Open		×
$\leftarrow \rightarrow \checkmark \uparrow$ 🔤 « OS (C:) > MagTekEMVConf	iguration v Ö Search M	agTekEMVConfigura 🔎
Organize 🔻 New folder		::: • 🔟 ?
📌 Quick access	Name	Date modified 1
Dedter	AMEX_CAPKs.xml	6/11/2019 8:51 AM X
Lesktop	MagTekEMVConfiguration.exe	6/7/2019 8:42 AM A
	MTCMSNET.dll	3/6/2019 9:12 AM A
	MTSCRA.dll	6/6/2019 11:01 AM A
	📝 TagDesc.xml	6/3/2019 4:59 PM >
	📝 TerminalTagsAll.xml	6/10/2019 4:33 PM
	📔 TerminalTagsOne.xml	6/10/2019 4:05 PM
	<	>
File name: AMEX_CAPKs.xml		~
	<u></u> pe	n Cancel

 The status of the verification will be displayed. Each mismatched RID is shown as: Error Item [RID] -> [ValueFromFile]

Example: Successful verification.

	>				
Load CAPK from C:\MagTekEMVConfiguration\AMEX_CAPKs - Copy.xml Compare CAPK from C:\MagTekEMVConfiguration\AMEX_CAPKs - Copy.xml -> True					

Example: Failed verification.

Load CAPK from C:\MagTekEMVConfiguration\AMEX_CAPKs.xml	
Compare CAPK from C:\MagTekEMVConfiguration\AMEX_CAPKs.xml -> False	
Error Item : A000000025 -> DFDF7905A000000025DFDF7A01C2DFDF7881B0B875002F38BA26D61167C5	440367604AD38DF2E93D8EE8DA0E8D9C0CF4CC