

## **User Manual**

# UniMag Decryption Demo Software

80110506-001-A 12/09/2010

#### **Revision History**

Revision	Description	Date
А	Initial Release	12/09/2010

#### 1. Introduction

The encrypted UniMag kit comes with an adaptor board to enable the communication between the UniMag reader and PC. To set up UniMag connection, please follow the below steps:

Tools:

- 1) The adapter board with audio jack and RS232 connector.
- 2) 5V power adapter

3) UniMag RS232 Demo software

Steps:

- 1) Connect the UniMag reader to the phone jack on the adapter board.
- 2) Connect the RS232 connector on the adapter board to PC
- 3) Plug 5V power adapter to the RS232 connector on the adapter board.
- 4) Launch the demo software, make sure the correct COM port is selected under the "Port" menu

#### 2. Demo Software Instruction

1. Press the "synchronize" button to see the current reader status. If it reads security level 3 it means the encryption is enabled.

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Ge	neral S	etting MSR	Security	Port	Help					
	Manua	al Command /	/ Reader C	)utput-						
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	eg. S	53 18 (Set De 52 22 (Bood J	efault Conf	iguration	)					
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		Synchronize	e Ser	nd Comm	hand	Decrypt	Input Key for De	cryption	Exit	
	Comm	and Output /	/ Decrypte	d Data						
	UniM	lag Reader C	onnected!						<u>^</u>	
	- TDI	ES Encryption	n							
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2. Swipe a card and the encrypted data will be shown in the upper text box.

🚐 UniMag RS232 Demo ver 4.2	×
General Setting MSR Security Port Help	
Manual Command / Reader Output	
021201003B482300252A343236362A2A2A2A2A2A2A2A2A39393939395E42555348204A522F47454F52474520572 E4D525E2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A	
eg. 53 18 (Set Default Configuration) eg. 52 22 (Read Firmware Version)	
Synchronize Send Command Decrypt Input Key for Decryption Exit	
UniMag Reader Connected! - Security Level is 3 - TDES Encryption	

3. Click on the "Decrypt" button to get the decrypted card data. The decrypted card data will show in the lower text box.

🚍 UniMag RS232 Demo ver 4.2
General Setting MSR Security Port Help
Manual Command / Reader Output           Reader Output:         (ISO/ABA Data Output Format)           021201003B482300252A343236362A2A2A2A2A2A2A2A393939395E42555348204A522F47454F52474520572           E4D525E2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A2A
EUCB0ADD4380543135DC66D465648687CCADF33C17728A91ED05123EC3ED1D3A8864CF11406FAD2ECD 104D24D5C2FFE3638D22CC13EFBB3C27E83CF281EAAF0936EB72EB73BEEF152415AD7E2D51E8B75CF998 35265668394628DE990C31D97C49B7EA693418AC88F65E1DB7ED4D10973F99DFC8463FF6DF113B6226C48 98A9D355057ECAF11A5598F02CA31629949011C0000E00002E5DB03 Masked Data:
Track 1: % 4266 9393 BUSH JH/GEURGE W.MR
eg. 52 22 (Read Firmware Version)  Synchronize Send Command Decrypt Input Key for Decryption Exit
Command Output / Decrypted Data
Key Value: 7D EC 71 A5 D7 0B CE 5F 56 21 9F FA C8 94 66 E1 KSN: 62 99 49 01 1C 00 00 E0 00 02
Decrypted Data: %B4266841088889999^BUSH JR/GEORGE W.MR^080910110000110000000046000000?!;4266841088889999=080910110000046?0
254234323636383431303838383838393939395E42555348204A522F47454F52474520572E4D525E3038303931 3031313030303031313030303030303030303

For details on how to decrypt the encrypted card data, please see the decryption demo software source code.