MAGTEK®
SECURITY FROM THE INSIDE

eDynamo

Frequently Asked Questions

Q: Does eDynamo support the reading of magstripe and EMV cards?
A: Yes, the eDynamo can read magstripe and contact EMV cards that meet the ISO 7810, 7811, 7816 specifications.

Q: What operating systems will support eDynamo as a USB or wireless device?
A: USB 1.1/2.0 supported by: Windows 7, Windows 8, Windows 10.
Wireless supported by: iOS 7.1, Android 4.4.2, Windows 8.1 on hosts with wireless hardware

Q: What interface options does the eDynamo support?
A: USB HID (wired) and wireless

Q: Is the eDynamo battery operated?
A: Yes, the eDynamo has an internal rechargeable battery.

Q: Does the battery need to be charged in order to operate the eDynamo?
A: The eDynamo can operate with no battery charge provided that it is connected to a USB power source.

Q: Can the eDynamo be mounted to a docking station?
A: Yes, the eDynamo can operate with an optional Docking Station (Part # 21079809) designed to elongate the swipe path and provide hard mounting points to secure the device to a solid surface such as a countertop.

Q: Does eDynamo have a power switch?
A: No, but it does have a pushbutton. The pushbutton on the side of the device above the USB port is used to reset the reader and to wake the reader from Airplane Mode (eDynamo is never completely turned off).

Q: What is airplane mode?
A: Press the pushbutton for at least 10 seconds and the eDynamo will reset and go into airplane mode. While in airplane mode, the eDynamo will no longer advertise over wireless and cannot be connected wirelessly. To take the eDynamo out of airplane mode press and release the pushbutton quickly. The blue LED will flash every two seconds to indicate it is advertising. The blue LED will stop blinking after 60 seconds to conserve power, but the eDynamo will continue to advertise. The blue LED can also be optionally configured to be on when a wireless connection is active or off when inactive.

Q: Is the battery used when the eDynamo is connected and interfacing through USB HID?
A: No, the battery is not used when connected and interfacing through USB HID.

Q: Is the battery used when operating wirelessly if the eDynamo is connected to a USB power source?
A: No, the battery is not used when connected to a USB power source.

Q: When is power from the battery necessary?
A: The battery is ONLY USED if the eDynamo is being used as a portable (wireless) device, interfacing wirelessly and not powered through a USB power source.

eDynamo
Specifications

Using the MagTek USB MSR Demo Program

Q: What are the commands used to retrieve the eDynamo's main firmware version?
A: Uncheck Auto Add Length, Send 00 01 00, device reset is NOT necessary.

Q: What are the commands used to retrieve the eDynamo's wireless firmware version?
A: Uncheck Auto Add Length, Send 46 04 01 00 00 00, device reset is NOT necessary.

Q: Can the Swipe Output Channel be changed using the MagTek USB MSR Demo Program?
A: Yes, the user can temporarily override the Swipe Output Channel to the following. **Change to wireless:** Uncheck Auto Add Length, Send 480101. Reset the eDynamo to revert back to the original. Swipe Output Channel. **Change to USB:** Send 480100, Reset the eDynamo to revert back to the original Swipe Output Channel.

Q: What is the "Default" pairing code for an eDynamo?
A: The Default Pairing Code for an eDynamo is 000000.

Q: Does eDynamo support custom pairing codes?
A: Yes, the user can set a Custom Pairing Code. See the command for wireless Property 0x07 - Passkey in the MagneSafe V5 Programmer's Reference.

Q: What is the command sequence for configuring a wireless friendly name (for example: Andy)?
A: Uncheck Auto Add Length, Send (as Andy)
For "Andy" 6 08 01 00 01 02 41 6E 64 79
For "eDynamo-Andy" 46 10 01 00 01 02 65 44 79 6e 61 6d 6f 2D 41 6E 64 79
Send 02 00. Reset the eDynamo.
For an easy to use ASCII to HEX conversion tool see:
http://www.asciitohex.com/

Q: What is the command sequence for erasing ALL of the non-volatile memory for wireless?
A: Uncheck Auto Add Length, Send 46 05 01 00 06 55 AA, Send 02 00. Reset the eDynamo.

Q: What is the command sequence for configuring the wireless LED functionality control?
A: Uncheck Auto Add Length, Send 46 05 01 00 01 13 00 (00 is set to Off), Send 46 05 01 00 01 13 01 (01 is set to ON). A device reset is NOT necessary.

Q: How many transactions can occur before charging might be needed?
A: Number of transactions per charge*:

(Time per Transaction = ~15s)	Year 1	Year 2	Year 3	Year 4	Year 5
MSR Transaction	1,800	1,350	900	700	500
Smart Card Transaction	1,250	900	700	500	350

* Note, the battery capacity will degrade with time. These estimates assume the total number of transactions will NOT exceed the limits listed for each transaction type or combination thereof.

Q: How many transactions can occur per day/per week assuming the battery is fully charged?
A: The eDynamo uses an internal rechargeable battery. If the eDynamo is communicating with a wireless host and operating on battery power (NOT USB power), the eDynamo should be able to accommodate the following**:
- ~250 magstripe swipes per day, ~7 days per week
- ~180 chip reads per day, ~7 days per week

**These estimates assume the Blue LED is illuminated when connected to a wireless Host. If this setting is changed and the blue LED is turned off, then add ~ 20% more transactions to each example.

SECURE CARD READER AUTHENTICATOR (SCRA)	
ANSI/ISO/AAMVA card reading Bi-directional Magstripe: Reads up to 3 tracks magstripe data EMV LEVEL1 CONTACT EMV LEVEL2 CONTACT Encryption: TDEA (3DES)-CBC using DUKPT	
Compliance	Ingress Protection: IP-30 Compliant FCC Title 47 Part 15 Class B CE Level C EMC; CE Safety UR/CUR UL Recognized California Proposition 65 (California); WEEE
Status Indicators	Wireless Status LED (Blue) Three-color General Status LED (Red/Green/Amber)
Power Inputs	USB powered via Micro-USB
Supported operating Systems	USB Wireless
USB	Windows 7/8/10, OSX
Wireless	Windows 8.1 on hosts with wireless hardware; iOS 7.1 and newer; Android 4.4.2 and newer
MECHANICAL	
Dimensions	2.48 in. x 1.52 in. x 0.96 in. (62.9mm x 38.5mm x 24.5mm)
CONNECTION TYPES	
Wired Connection Types	Micro-USB B, configured to appear as HID
Wireless Connection Types	Configured to appear as a GATT device
Wireless Range	Minimum 33 ft. (10 m) in line-of-sight conditions

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Founded in 1972, MagTek is a leading manufacturer of electronic systems for the reliable issuance, reading, transmission and security of cards, checks, PINs and identification documents. Leading with innovation and engineering excellence, MagTek is known for quality and dependability. Its products include secure card reader/authenticators, token generators, EMV contact, contactless and NFC reading devices, encrypting check scanners, PIN pads and distributed credential personalization systems for secure magstripe and EMV enabled cards. These products are used worldwide by financial institutions, retailers, and processors to provide secure and efficient payment and identification transactions. Today, MagTek continues to innovate. Its MagneSafe™ Security Architecture leverages strong encryption, secure tokenization, dynamic card authentication, and device/host validation enabling users to assess the trustworthiness of credentials and terminals used for online identification, payment processing, and high-value electronic transactions.