

EASYMAGTM Magnetic Stripe Reader

USB/Keyboard Interface

Quickstart Manual



ID TECH
10721 Walker Street
Cypress, California 90630
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80035501-001

Rev. A R02/05

#437

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Value through Innovation

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AGENCY APPROVED

Specifications for subpart B of part 15 of FCC rule for a Class A computing device.

LIMITED WARRANTY

ID TECH warrants this product to be in good working order for a period of one year from the date of purchase. If this product is not in good working order as warranted above, or should this product fail to be in good working order at any time during the warranty period, repair or replacement shall be provided by ID TECH.

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DATA EDITING

The EasyMag has a data editing feature incorporated into its firmware. This feature allows the data read from the magnetic stripe to be sent to the host in the exact format expected by the host software, eliminating the need for modifications to the application software.

Full data editing instructions for the USB/Keyboard interface version of the EasyMag are contained in the ID TECH EasyMag Keyboard Wedge User's Manual (P/N: 80003507-001). In addition, a USB/Keyboard Setup Utility (P/N:80035801-001) is necessary to program the unit via keyboard entry. Both the manual and the utility are available without cost on the ID TECH website (www.id-tech.net), or by returning the coupon below:

ID TECH
10721 Walker Street
Cypress, CA 90630

Please send the following:

EasyMag Keyboard Wedge User's Manual (P/N: 80003507-001)
USB/Keyboard Setup Utility (P/N: 80035801-001)

Name: _____
Company: _____
Address: _____
City: _____
State: _____
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There is no charge for a single copy of each. There will be a charge of \$10.00 for each additional set.

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DEFAULT SETTINGS TABLE

The EasyMag reader is shipped from the factory with the following default settings already programmed:

Magnetic Track Basic Data Format

Track 1: <SS1><T₁ Data><ES><ENTER>*
Track 2: <SS2><T₂ Data><ES><ENTER>*
Track 3: <SS3><T₃ Data><ES><ENTER>*

where: SS1(start sentinel track 1) = %
SS2(start sentinel track 2) = ;
SS3(start sentinel track 3) = ; for ISO, ! for CDL, % for AAMVA
ES(end sentinel all tracks) = ?

Keyboard/USB Communication Default Settings

Terminal type: IBM PC/AT
Intercharacter delay: 2 ms
Language: US English

Start or End Sentinel: Characters in encoding format which come before the first data character (start) and after the last data character (end), indicating the beginning and end, respectively, of data.

Track Separator: A designated character which separates data tracks.

Terminator: A designated character which comes at the end of the last track of data, to separate card reads.

LRC: Check character, following end sentinel.

CDL: Old California Drivers License format.

**Note: The <ENTER> commands shown above for tracks 1 & 2 and 2 & 3 denote the default character for this position, the Track Separator position. The <ENTER> command shown for track 3 denotes the default character for this position, the Terminator position.*

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SPECIFICATIONS

Power Requirements:	5 VDC +/-10% (50mV ripple maximum). Ground 0 VDC (GND). Chassis ground connected to GND and magnetic head case.
Operating Current:	About 40mA for decoded magnetic stripe (three tracks).
Operating Temperature:	32° F to 131° F (0° C to 55° C).
Storage Temperature:	-22° F to 158° F (-30° C to 70° C).
Relative Humidity:	Maximum 95% non-condensing.
Magnetic Head Life:	1,000,000 passes minimum.
Rail and Cover Life:	1,000,000 passes minimum.
Magnetic Stripe Recording Method:	Two-frequency coherent phase (F2F) compatible with ISO 7811, ANSI, AAMVA, and California DMV.
Maximum Number of Tracks:	3 tracks.
Read Rate:	Less than one error in 100,000 bits on cards conforming to ISO 7811 1-5 (not induced by operator error).
Swipe Speed:	3 to 60 inches per second, bidirectional.
Card Width:	.01 to .045 inches.
Slot Width:	.050 inches.
Dimensions:	Length: 5.22 inches (133mm). Width: 1.25 inches (32mm). Height: 1.6 inches (41mm).
Weight:	8 oz.
Cable Length:	5-foot straight cable.

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DESCRIPTION

The EasyMag™ magnetic stripe reader can read 1, 2, or 3 tracks of magnetic stripe information. In addition, it has full data editing capabilities.

When connected to the host computer via the USB input port, the EasyMag is completely compatible with the host's software. The decoded data appears to the host as if it were entered manually by the operator through the keyboard.

This unit is fully programmable through the keyboard using the USB/Keyboard Setup Utility. The data can be formatted with preamble/postamble and terminator characters to match the format expected by the host.

Power, when the reader is connected via the USB input port, is obtained from the host. No separate power supply is required.

HOST CONNECTIONS

The EasyMag reader is connected to the host computer via a USB input port. Since USB devices are designed to be "plug and play," the computer will search for a Human Interface Device (HID) driver when the EasyMag is first connected. If one cannot be found, the computer will prompt you to make a selection. The Windows CD may be needed to complete the installation.

Magnetic data "swiped" into the unit appears to the host as coming directly from the keyboard. This makes the reader, as a data source, completely transparent to the host's application software. In other words, if it is expecting data from the keyboard, that same data can be entered via the EasyMag and make no difference to the host.

Since the host computer's application software is expecting data to be input in a particular order and format, the reader's output can be configured to simulate the keyboard-entered data stream by adding terminating characters and special preamble and/or postamble character strings to scanned data.

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CONFIGURATION

The EasyMag can be configured to your specific application. Configuration settings enable the reader to work with the host system. These settings are programmed into the reader through the keyboard, using the ID TECH USB/Keyboard Setup Utility. Once programmed, these configuration settings are stored in the reader's non-volatile memory (so they are not affected by the cycling of power).

The EasyMag is shipped from the factory with the default settings already programmed. For a table of default settings, see the Default Settings Table. Instructions necessary to program the unit with custom settings are contained in the ID TECH EasyMag Keyboard Wedge User's Manual (P/N: 80003507-001). The manual and setup utility are available directly from ID TECH, or via the company's Internet website.

OPERATION

The EasyMag magnetic stripe reader is easy to operate. Just follow these simple steps:

1. Make sure the reader is properly connected and is receiving sufficient power.
2. To read a card, slide the card, in either direction, through the reader slot, with the magnetic stripe facing the magnetic head (LED side).
3. While swiping the card through the reader, the LED will go off.
4. Once the entire magnetic stripe has been read, the LED indicator will light up as green to signal a "good read." If a good read is not obtained, the LED indicator will light up as red.
5. A beep will also sound to indicate a good read on each track. If all three tracks have been read successfully, the reader will beep three times.

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