

# MR-2100/2200 SERIES MAGNETIC STRIPE READER USER'S MANUAL Rev. : Original



## I. FEATURES

- Dual directional operation.
- Convenient operation dual side swipe design (MR-2200).
- Built-in Magnetic Stripe Reader Triple tracks.
- Built-in keyboard wedge interface or RS-232 interface or USB interface.
- Built-in decoder
- Heavy duty die cast case
- 3 tracks type MSR can read also AAMVA and CA DMV card

### FCC NOTICE

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with limits for a Class A digital device pursuant to subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures to correct the interference.

### WARRANTY LIMITS

Warranty will terminate automatically when the equipment is opened by any person other than the authorized technicians. The user should consult his/her dealer for the problem happened. Warranty voids if the user does not follow the instructions in application of this merchandise. The manufacturer is by no means responsible for any damage or hazard caused by improper application.

The hardware utility program, including instructions for its use, is provided "AS IS" without warranty of any kind. Posiflex Technology, Inc. further disclaims all implied warranties including without limitation any implied warranties of merchantability or of fitness for a particular purpose. The entire risk arising out of the use or performance of the software and documentation remains with you.

### ABOUT THIS MANUAL

This manual is written in an attempt with full strength to assist the user to utilize the stand-alone magnetic stripe reader MR2100/MR2200 series of Posiflex POS products. This series of products provide excellent flexibility and reliability in application. This manual covers both operational and technical aspects of these units.

The manufacturer of the MR2100/2200 series heartily apologizes to the user for reserving the right to change or to modify this manual without notice due to the rapid and constant progress and improvement on science and technology. The user may always obtain the most up to date information through any of our web sites: <http://www.posiflex.com> or <http://www.posiflex.com.tw> or <http://www.posiflexusa.com>.

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### TRADE MARKS AND SERVICE MARKS

P/N: 19030901010

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## II. MODEL IDENTIFICATIONS

Models	MR2100	MR2100-JIS2	MR2200
Application			
Interface	USB or RS232 or PS2	USB or RS232	USB or RS232 or PS2
Reader Head	ISO Single Head	JIS2	ISO Dual Side Head

## III. SPECIFICATIONS

### ● Reader specification

Applicable card type	ISO 7811	JIS X 6302
Card feed method	Manual	
Card feed direction	Bi-direction	
Read / write function	Read only	
Card feed speed	5 to 55 inches/sec.	100 ~ 1200 mm/sec.
Error rate	Less than 0.5%	Less than 0.1%

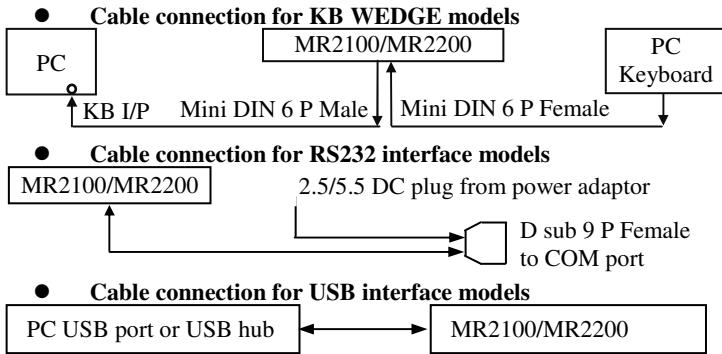
### ● Card data format

Data standard	IATA	ABA	THRIFT	JIS I	JIS II
Track used	Track 1	Track 2	Track 3	(Track 2)	Rear side
Applicable to models	MR2100-MR2200			MR2100-JIS2	
Recording method	F <sup>2</sup> F (FM)				
Recording density	210 BPI	75 BPI	210 BPI	75 BPI	210 BPI
Recording capacity characters / bits	79 / 7	40 / 5	107 / 5	40 / 5	72 / 7

Note: AAMVA and CA DMV standards are supported in 3 track ISO models

- Dimensions: 14.5 cm (L) X 4.6 cm (W) X 3.4 cm (H)
- Weight: 490 gm
- LED: dual color -- green for good read or ready to read  
red for invalid read
- Rated voltage: 5 VDC
- Rated current: 100 mA max.

## IV. CABLE CONNECTION GUIDE

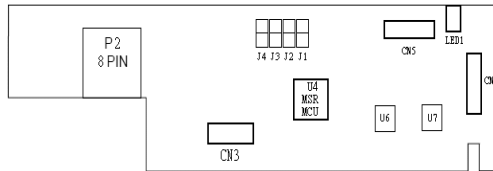


## V. ADJUSTABLE PARAMETERS

Some parameters in readout format of the MR2100/MR2200 series in PS/2 KB interface and USB interface can be controlled by software downloaded from our web site: <http://www.posiflex.com>. However, PS/2 and USB model are automatically saved parameters even after power off and on. It is also possible to adjust some parameters with modification in hardware described below if not by software. Please note that the individual track enable mentioned applies only when the track is supported in physical reader head.

- For ISO & JIS2 in USB Mode Jumper Setting**

- P2 : Connected to USB Cable
- CN3 : ISP(Update MCU Firmware)
- CN4 / CN5 : ISO Magnetic Stripe Reader (Use in "USB KB mode" or HID mode")
- CN4 / CN5 : JIS2 Magnetic Stripe Reader (Only use in "USB KB mode")



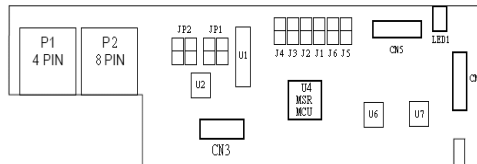
**Jumper Setting:**

Jumper Position	J1	J2	J3	J4
Function	ALT-Num	NumLock	USB Class	Boot protocol
Opened	Enable	Send Numlock Key Code	Vendor Class for Linux or WinCE	Boot protocol for DOS 6.22
Closed	Disable	N/A	HID Class for Windows	Non-Boot protocol for Windows
Default	Close	Close	Close	Close

- For ISO in PS2 & RS232 Mode Jumper Setting**

**For RS232 Mode:**

- P1 : Not connected.
- P2 : Cable Connected to MB(Com Port) & Power: 5V.
- CN3 : ISP(Update MCU Firmware)
- CN4/CN5: ISO Magnetic Stripe Reader/JIS2



**Jumper Setting:**

Jumper	J1	J2	J3	J4	J5	J6	JP1	JP2
Function	Alt-Num	Lead/End Code	PS2/RS232	Trk1	Trk2	Trk3	Header2x2 RS232	Header2x2 PS2
Opened	Enable	Enable	PS2	Disable	Disable	Disable		
Closed	Disable	Disable	RS232	Enable	Enable	Enable		
Default			CLOSE				CLOSE	OPEN

Note: RS232 Mode must be closed J3, JP1; Opened JP2.

**For PS2 Mode:**

- P1 : Connected to PC(PS2-KB Port)
- P2 : Connected to Keyboard
- CN3: ISP (Update MCU Firmware)
- CN4/CN5: ISO Magnetic Stripe Reader

**Jumper Setting:**

Jumper	J1	J2	J3	J4	J5	J6	JP1	JP2
Function	Alt-Num	Lead/End Code	PS2/RS232	Reserve	Reserve	PS2 Pin Switch	Header2x2 RS232	Header2x2 PS2
Opened	Enable	Enable	PS2					
Closed	Disable	Disable	RS232					
Default			OPEN			OPEN	OPEN	CLOSE

Note: PS2 Mode must be opened J3, J6, JP1; closed JP2