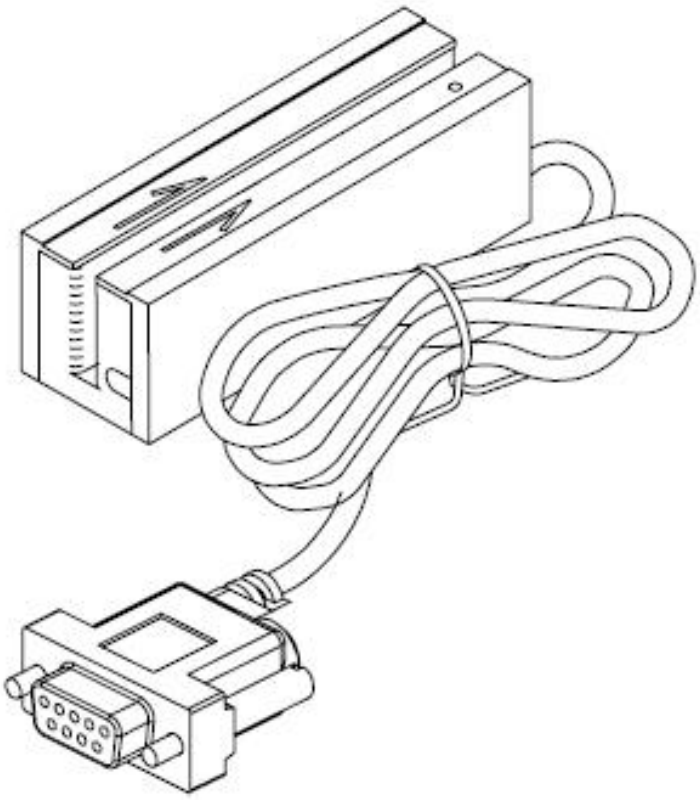


150-123 RS-232

Magnetic card reader User's Manual

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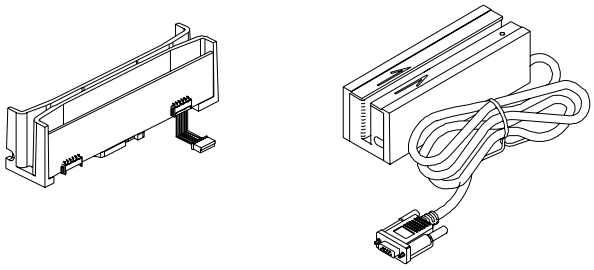
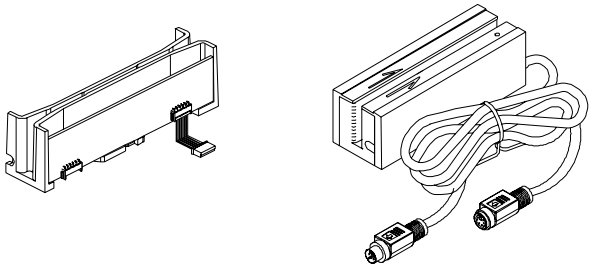
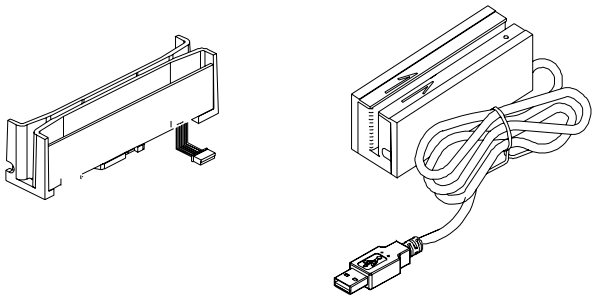
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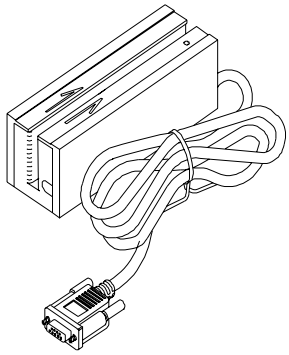
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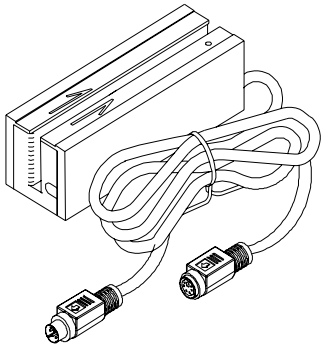
Information

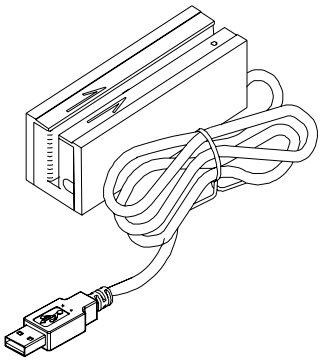
150-123 Series Magnetic Swipe Reader

MACHINE TYPE	FUNCTION
 150-123 RS-232	MC 123 · JIS 123 · BEEP · RS-232
 150-123 PS/2	MC 123 · JIS 123 · BEEP · KEYBOARD
 150-123 USB	MC 123 · JIS 123 · BEEP · HID

■ Standard Package



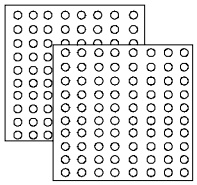




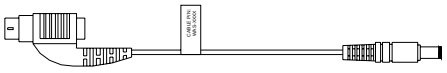
Main unit



Software Disk



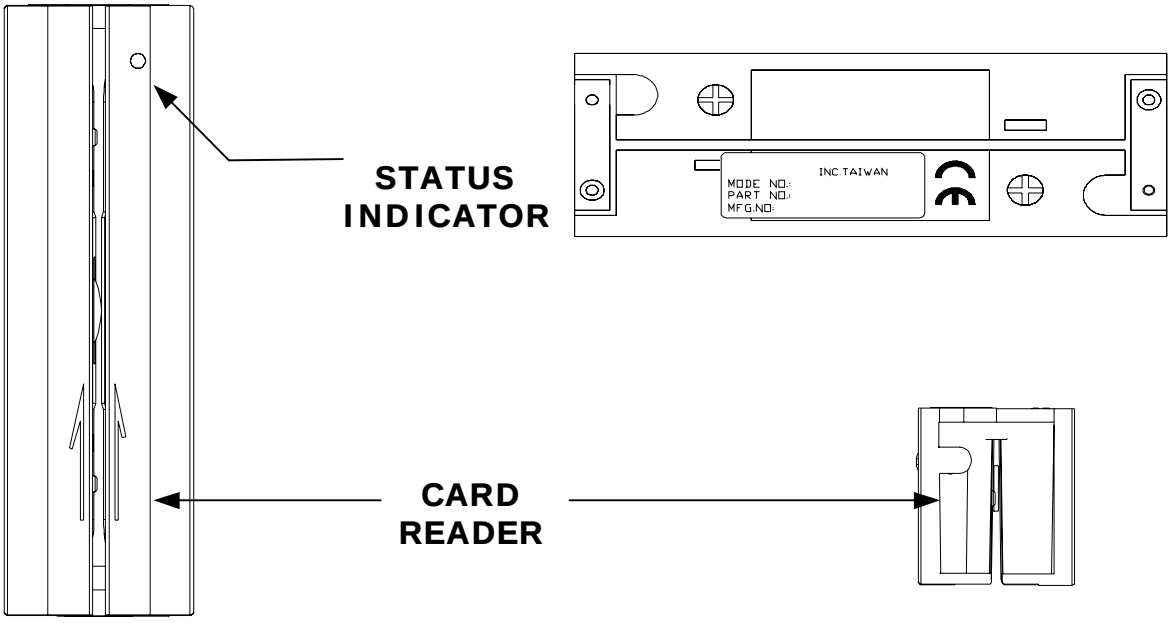
Velcro Pack



WAS-1536
(only for RS-232)

Technical And Operational Description

■ Front Panel Display and Operations



- **CARD READER**
  Swipe the card through the entire length of the slot to read.

- **ERROR INDICATOR (Red color)**
  When encountering erroneous input, defective card, misread, or incorrectly encoded data, the device will turn on the ERROR indicator .

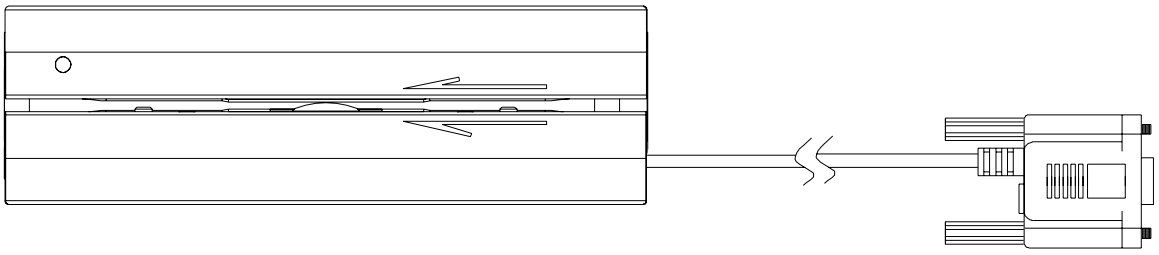
- **READY INDICATOR (Green color)**
  Indicating the reader is ready to accept new inputs.

■ Display Information

STATUS	GREEN LED	RED LED	BUZZER	READ CARD
POWER ON	BLINK 2 TIMES	BLINK 2 TIMES	Be-Bu-Be-Bu	X
READY	ON	OFF	X	O
READ OK	BLINK 1 TIME	OFF	Be	X
READ ERROR	OFF	ON	Be-Bu-Bu	X

Connections

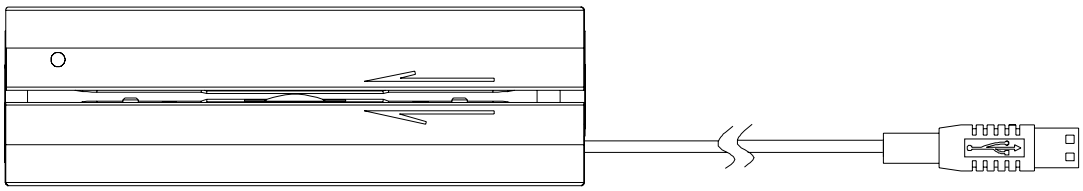
150-123 RS-232



DSB 9P FEMALE PIN *	FUNCTION	COLOR
8	RTS	BLUE
7	CTS	PURPLE
3	RX	YELLOW
2	TX	WHITE
5	GND	BLACK
DC JACK	VCC	RED

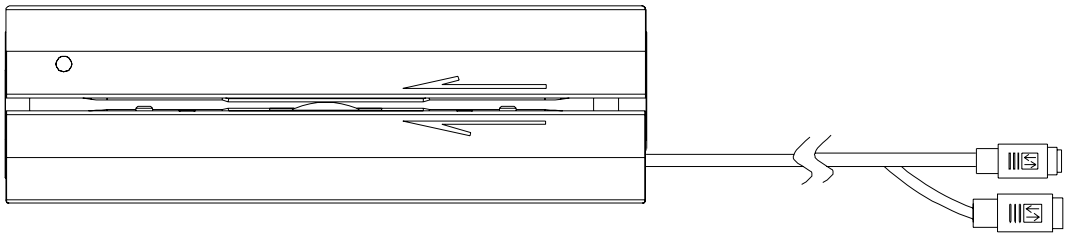
150-123 HID USB

USB Human Interface Device (HID)



USB PIN	FUNCTION	COLOR
4	GND	BLACK
3	D+	GREEN
2	D-	WHITE
1	VCC	RED

150-123 KBW PS/2



PS/2 MALE PIN	FUNCTION	COLOR	PS/2 FEMALE PIN	FUNCTION	COLOR
1	PC_DATA	WHITE	1	KB_DATA	BLUE
2	---	---	2	---	X
3	GND	RED	3	GND	RED
4	VCC	YELLOW	4	VCC	YELLOW
5	PC_CLK	BLACK	5	KB_CLK	PURPLE
6	---	---	6	----	YELLOW

Card Data Format

CARD DATA STRING

TRACK 1	TRACK 2	TRACK 3

SS	*TRACK1 DATA*	ES	SS	*TRACK2 DATA*	ES	SS	*TRACK3 DATA*	ES

%	*TRACK1 DATA*	?	;	*TRACK2 DATA*	?	+	*TRACK3 DATA*	?

TRACK 1

%	CARD ID	?

1. SS is the start sentinel (%).
2. ES is the end sentinel (?).
3. Card Id up to 76 alphanumeric data characters.

Track 1 IATA	
Bits Per Inch	210
Bits Per Character	7
Alphanumeric Characters	79

TRACK 2

;	CARD ID	?

1. SS is the start sentinel (;).
2. ES is the end sentinel (?).
3. Card Id up to 37 numeric data characters.

Track 2 ABA	
Bits Per Inch	75
Bits Per Character	5
Numeric Characters	40

TRACK 3

+	CARD ID	?

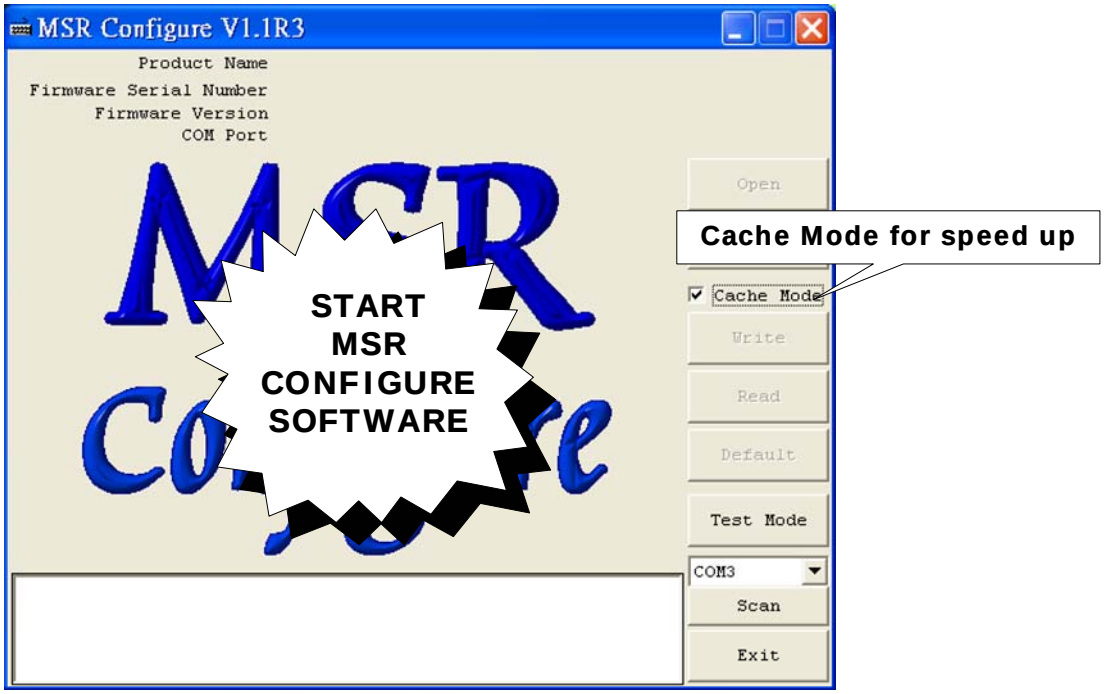
1. SS is the start sentinel (+).
2. ES is the end sentinel (?).
3. Card Id up to 104 numeric data characters.

Track 3 Thrift	
Bits Per Inch	210
Bits Per Character	5
Numeric Characters	107

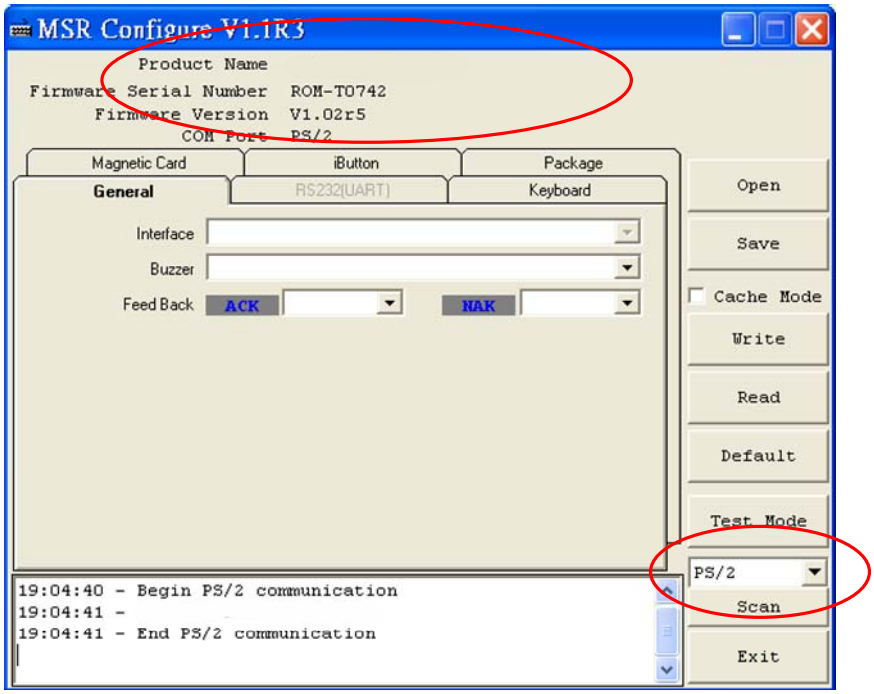
Note: Track 3 can read both ISO TK3 format and ISO TK1 format.

MSR Configure utility

STEP 1 : Run MSR Configure



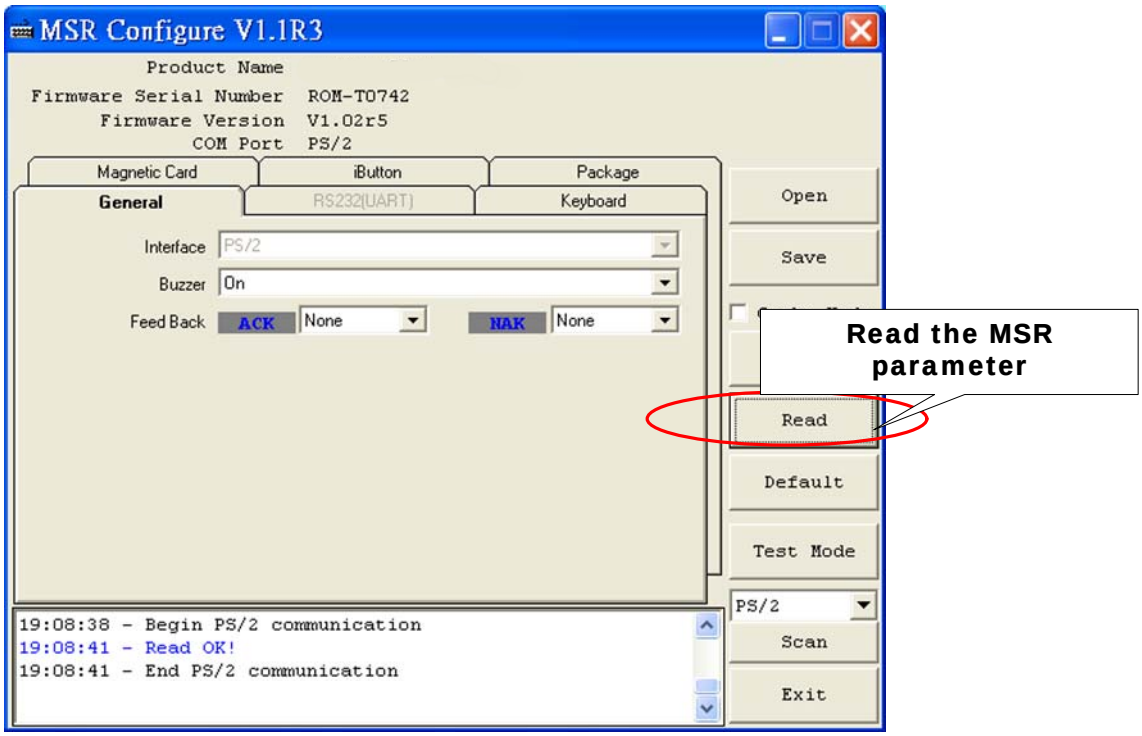
STEP 2 : Choose PS/2 or COM port and press “Scan” ,connect the 150-123 reader.



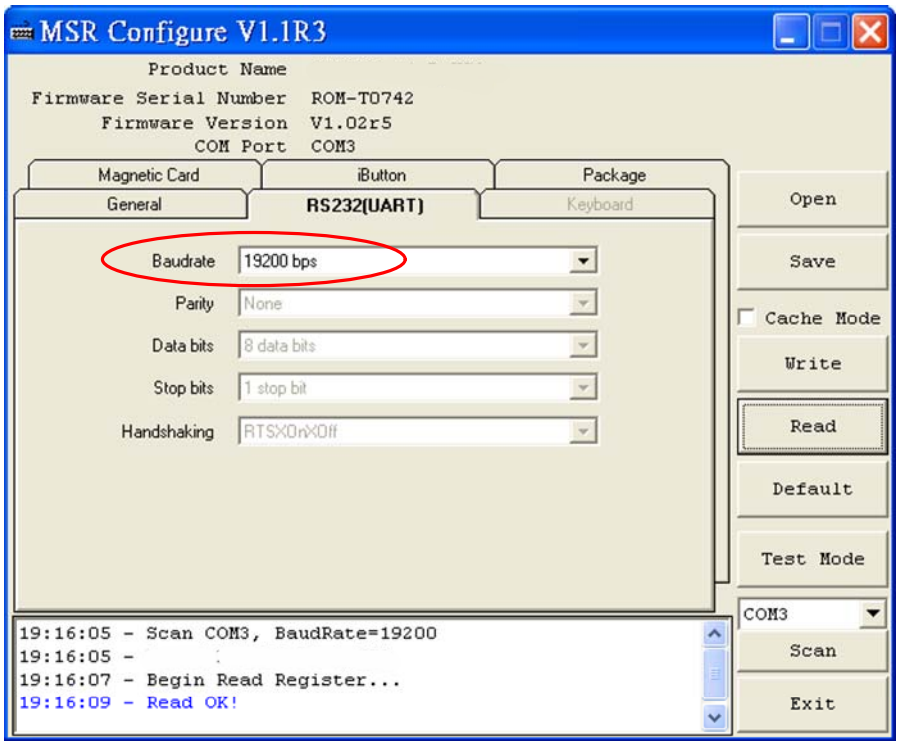
STEP3 : Click “Read” ,scan the 150-123 reader parameter.

General :

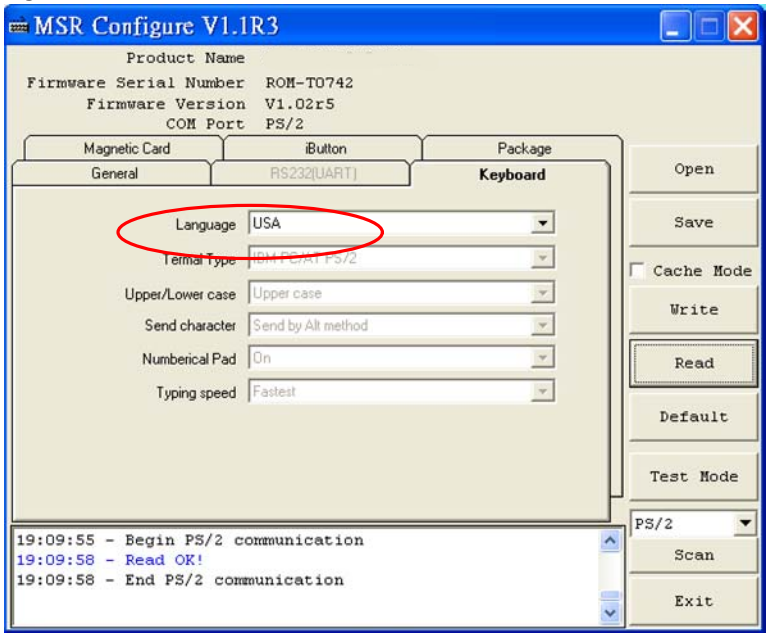
Interface : MSR Interface is being detected.
Buzzer : Choose buzzer enable or disable.
Feed Back : Set MSR output data ,waiting for feedback from the terminal.
Show ‘Error’ message if no reaction from MSR



RS232(UART) : Setting MSR communication parameter ,when RS232 and serial USB enable .



Keyboard ：Setting MSR language ,when keybpard enable .



Package ：Setting MSR & iButton data output package .

Data Format：

FS	+	MSR TK1+TK2+TK3 Data or iButton Data	+	Checksum	+	FE0	+	FE1

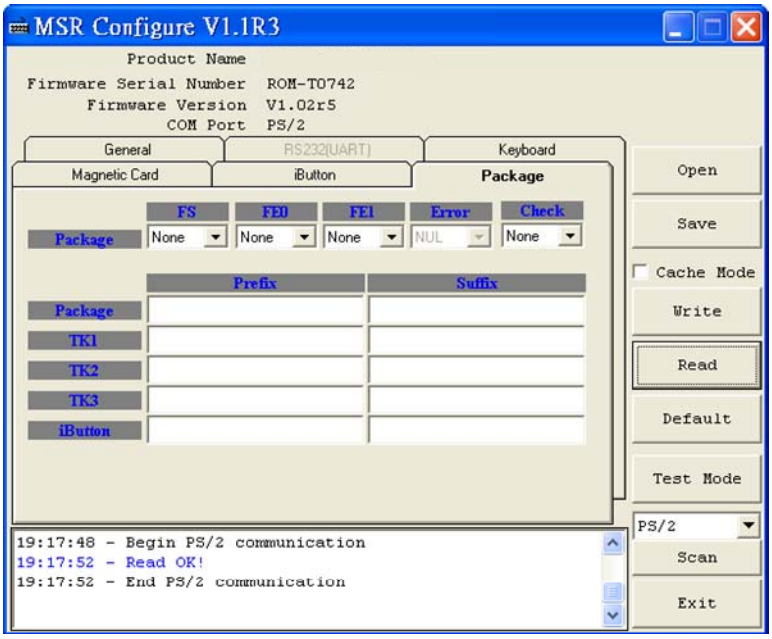
MSR Data Package：

Prefix	+	MSR Data Package	+	Suffix

iButton Data Package：

Prefix	+	iButton Data Package	+	Suffix

FS : Package leading character.
FE0 : Package ending character.
FE1 : Package ending character.
check : Bit check up.



Magnetic Card : Set MSR data format and data output parameter .

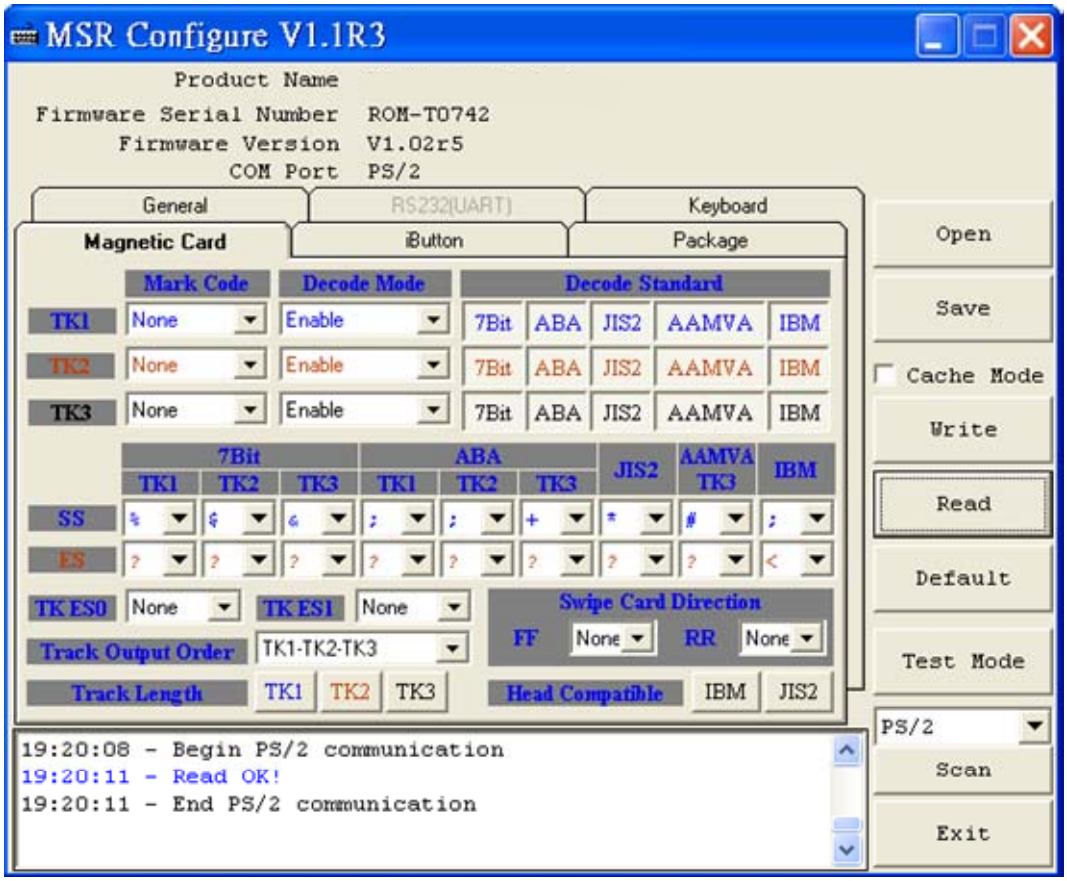
Data format :

SS	+	TK1 DATA	+	ES	+	SS	+	TK2 DATA	+	ES	+	SS	+	TK3 DATA	+	ES

MSR package :

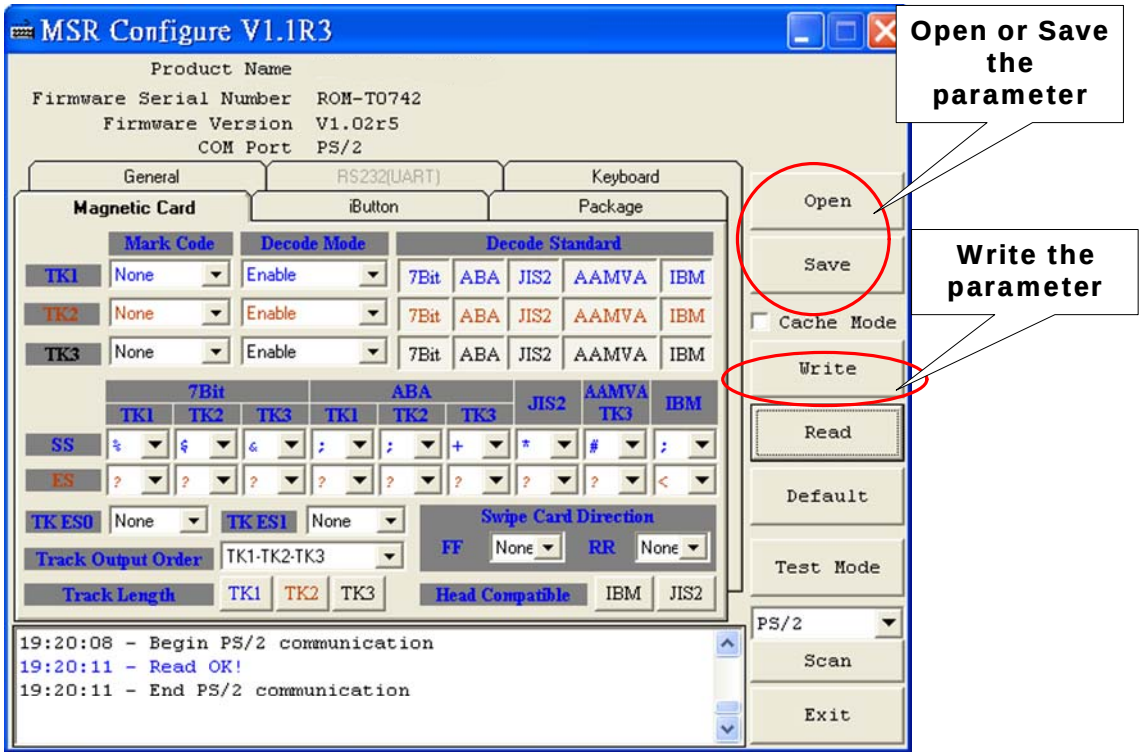
FF/FR	+	Mark Code	+	Data Format	+	TK ES0	+	TK ES1

Mark Code : Leading character to set up output data.
Decode Mode : To decode magstripe data.
Decode Standard : To decode magstripe format.
7Bit : 7 Bits Per Character data.
ABA : 5 Bits Per Character data .
JIS2 : JIS2 data format.
AAMVA : AAMVA data format .
IBM : IBM data format .
SS : Start Sentinel
ES : End Sentinel
TK ES0 : Ending prompt character .
TK ES1 : Ending prompt character .
Track Output Order : To set up track data in turn.
Track Length : To set up track data length.
Swipe Card Direction : To set up prompt character for direct/reverse side card swipe prompt character.
FF : To set up direct side cardswipe prompt character.
RR : To set up reverse side cardswipe prompt character.
Head Compatible : To set up the decoding work for IBM or JIS2 data output at one time only.



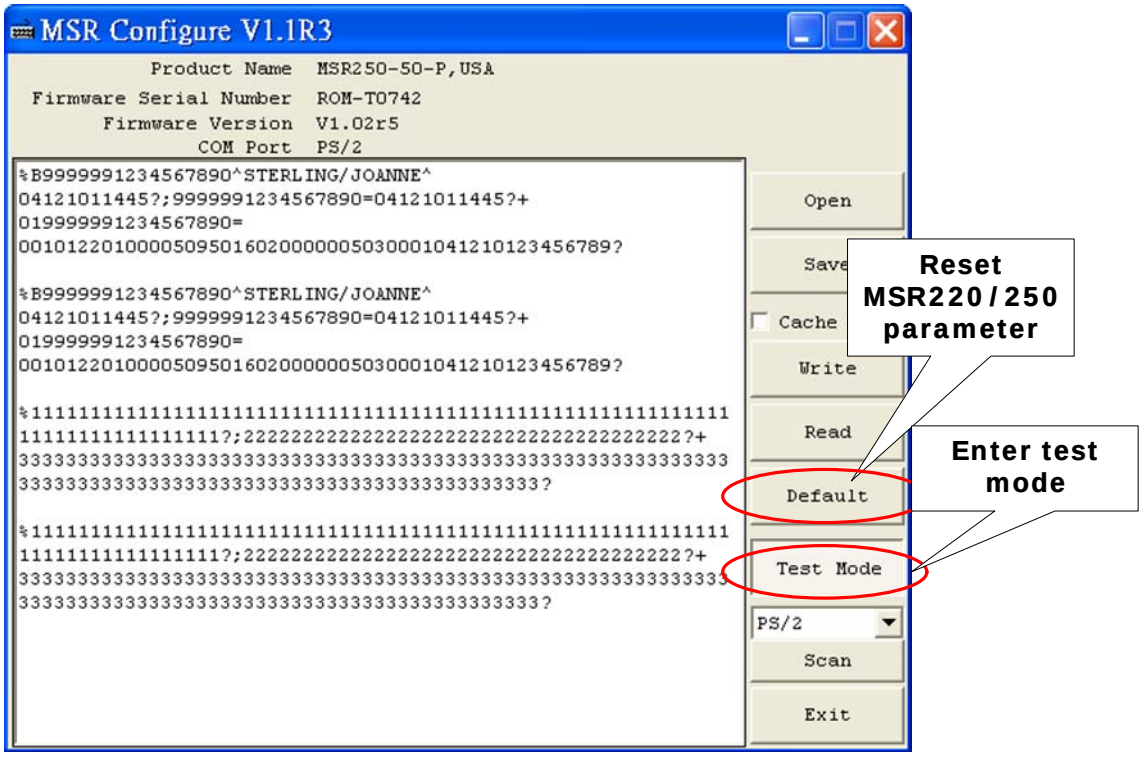
STEP4 : Click “Write” ,write the parameter to 150-123 reader .
Click “Open or Save” open or save your choose parameter to file.

PS.Same as to when 150-123 reader is in RS232 interface mode, Keyboard function will be in disable mode .When 150-123 reader is in Keyboard function, RS232 interface will be in disable mode.

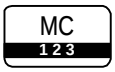


STEP5 : Click “Test Mode” can test the 150-123

STEP6 : Click “Default” can reset 150-123 parameter.



Specifications



Magnetic Stripe Card :

TRACK 1 / IATA / 210 bpi / 79 Alphanumeric Characters
TRACK 2 / ABA / 75 bpi / 40 Numeric Characters
TRACK 3 / Thrift / 210 bpi / 107 Numeric Characters



RS232 Interface :

RS232 , Half-Duplex , 8N1 , 1200~19200 bps



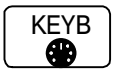
USB Interface :

RS232 , Half-Duplex , 8N1 , 1200~19200 bps



USB to PS/2 Interface :

USB Human Interface Device (HID) for PS/2



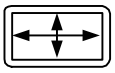
PS/2 Interface :

PC keyboard interface , Scan code



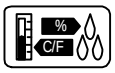
Power Supply :

DC 5V, 300mA



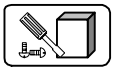
Dimensions :

D 23 x W 90 x H 24 mm (MSR220 without cover)
D 33 x W 100 x H 31 mm (MSR250 with cover)



Environment :

Operating Temp : 0 ~ 55 Deg.C
Storage Temp : -10 ~ 55 Deg.C
Humidity : 10 ~ 90 % relative



Mounting :

Portable or Any surface