

## Introduction

BWU-51 is a manual swipe Magnetic card reader/writer with USB interface. It supports ISO, IBM, DIN & ANSI standard and can read ISO 1, 2, 3 tracks.

## Specification

### Format

Standard Mag Card	ISO7811/7812		
Standard IC Mag Card	ISO7816		
Reading Method	F2F(FM)		
Track	Track 1	Track 2	Track 3
	ISO 1 ( IATA )	ISO 2 ( ABA )	ISO 3 ( MINTS )
Bit per Inch	210 BPI	75/210 BPI	210 BPI
Encoding Capacity	76 byte (7bit)	37 byte (5bit)	104 byte (5bit)
Card Thickness	0.76 ± 0.08mm		

### Environmental Requirements

Ambient Temperature: 1) Storage: -20°C ~ +55°C  
2) Operating: -5°C ~ +50°C

Ambient Relative Humidity : 1) Storage: 5% ~ 95% RH  
2) Operating: 20 %~ 90% RH

### Physical Characteristics

Size: 214.5mm ( length ) x 66mm ( width ) x 59mm ( height )

Weight: Appr. 1 kg.

Power requirement: 1) Input Voltage: Low Co. DC + 5V ±5%, High Co. DC +12V ±5%  
2) Reading Current: < 100mA  
3) Writing Current: Low Co. < 100mA, High Co. < 1.6A

Operating Locus: Indoor use only.

### Operating Characteristics

Card feeding speed: 1) 10 ~ 150cm/s (reading)  
2) 10 ~ 100cm/s (writing)

Lifetime: at least 500000 cycles

Error Rate: less than 0,5%

## Switch Setup

Setup auto-read function	
SW1	Auto-read
OFF	Forbid (Default)
ON	Allow

Setup Writing Standard			
SW3	SW4	Start	End
OFF	OFF	B	F (default)
OFF	ON	D	F
ON	OFF	BA	C
ON	ON	BA	F

Setup Writing Font	
SW5	Font
OFF	ISO (default)
ON	IBM

Setup Baud Rate		
SW7	SW8	Baud Rate
OFF	OFF	9600 (default)
OFF	ON	19200
ON	OFF	38400
ON	ON	57600

## Card Standards

Encoding density: 210 BPI (track 1/3), 75/210 BPI (track 2)

Encoding capacity: Track 1 (up to 76 chars)  
 Track 2 (up to 37 chars)  
 Track 3 (less than 104 chars)

## Card Format

### Magnetic card (ISO 1, 2 and 3 tracks)

NULL	SS	DATA *	ES	LRC
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74mm + 1mm

DATA \*: ISO 1: up to 76 chars  
 ISO 2: up to 37 chars  
 ISO 3: up to 104 chars

## Connection

1. Connect the Reader to Computer or Terminal applied.
2. Through PC or terminal, send the reading/writing instruction, set up the reader/writer in reading/writing status
3. After the Led light, swipe the card
4. If the operation is ok, the buzzer beep one time and light green. If not, the buzzer will beep twice and light red.