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**OPERATION
MANUAL**

**Magnetic Stripe Reader
1218 SERIES**

Verson 1.0

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CHAPTER 1***Introduction***

This product is an advanced bi-directional, programmable magnetic stripe reader. Supports ISO standard format card . It is designed for use with credit authorization terminals, point-of-sale terminals, portable terminals, personal computers and banking terminals. Model MSR K is designed to be used with IBM/AT compatible computer, entering data. As if it were being generated though the Keyboard, no software modification, nor Programming of input/output devices, nor Addition power supply is needed. Model MSR R operates as an on-line card reader which communicates with any computer via an RS232 interface. The MSR R requires +12v DC from either an external power supply or internal power of your computer or terminal. Model MSR U with USB 1.1 Interface , Communicates with any computer via USB ports . With the special Windows driver , it can emulate a Visual COM in the Windows and Application can access via this com port to communicate with MSR U .

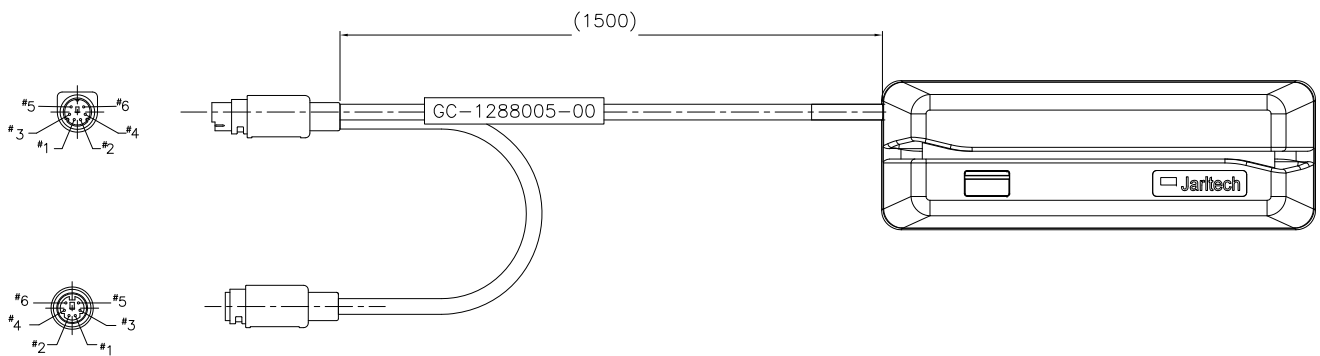
CHAPTER 2

Appearance



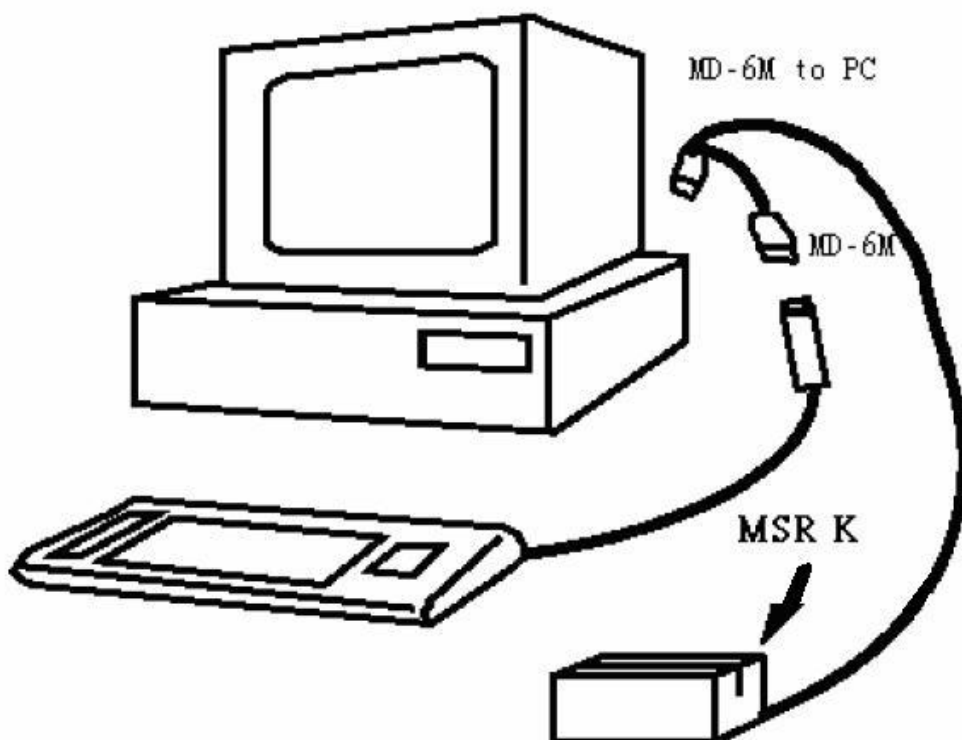
CHAPTER 3 *Installation*

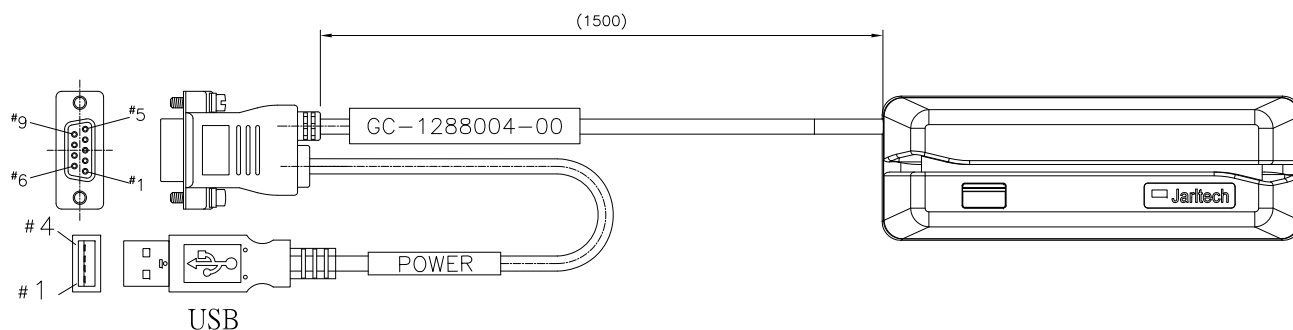
MSR KB series:



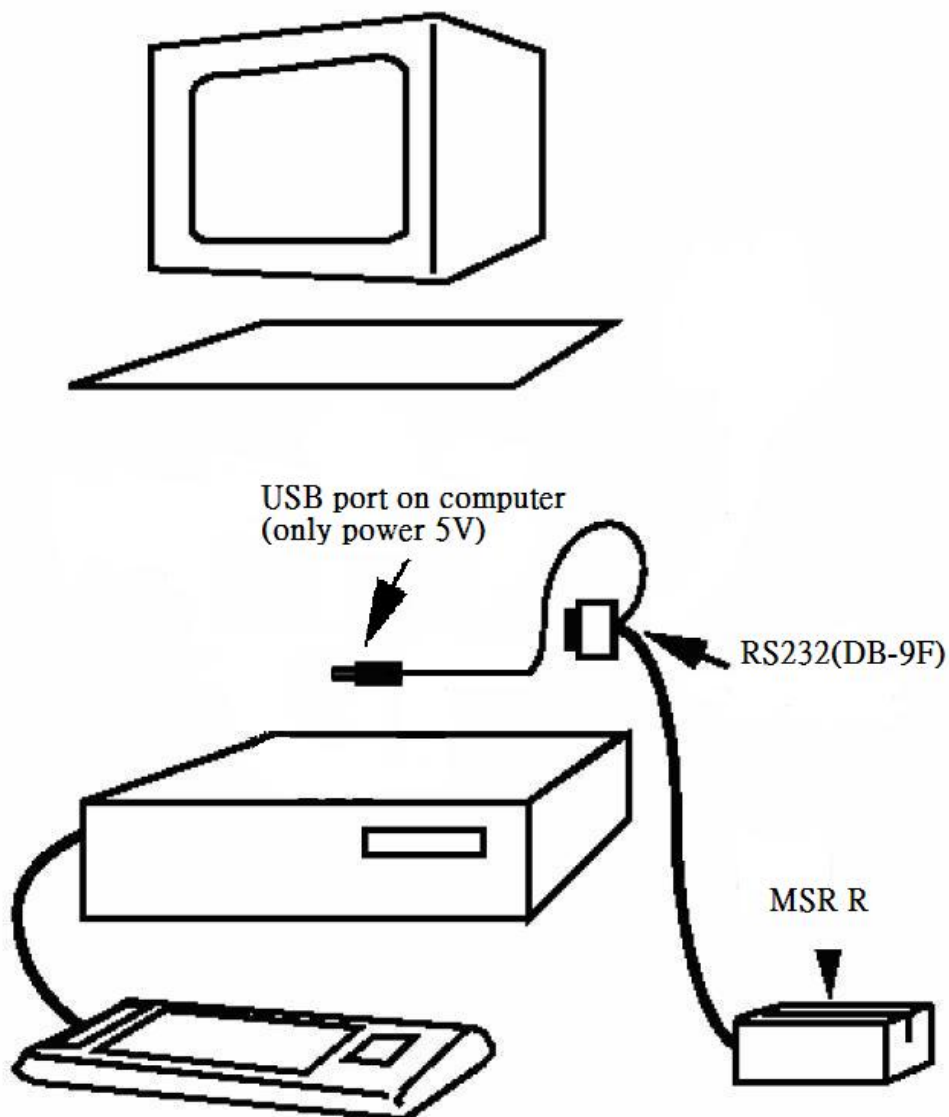
The MD-6M side of KB cable, shall be connected to PC PS/2 Keyboard port,
And then, connect RJ45 side to MSR.

The MD-6F side of KB cable can be connected to normal PC keyboard, PC keyboard can work with the product together.



MSR RS232 series:

The DB-9F side of RS232 cable connects to PC com port (com1 or com2 or other COMs) , RJ45 side connects to MSR. and power connects to DC jack of DB-9F connector.



MSR USB installation

Step 1: Connect to the computer

Plug the USB-connector into the USB port of your computer.

Refer to Figure 2-1.

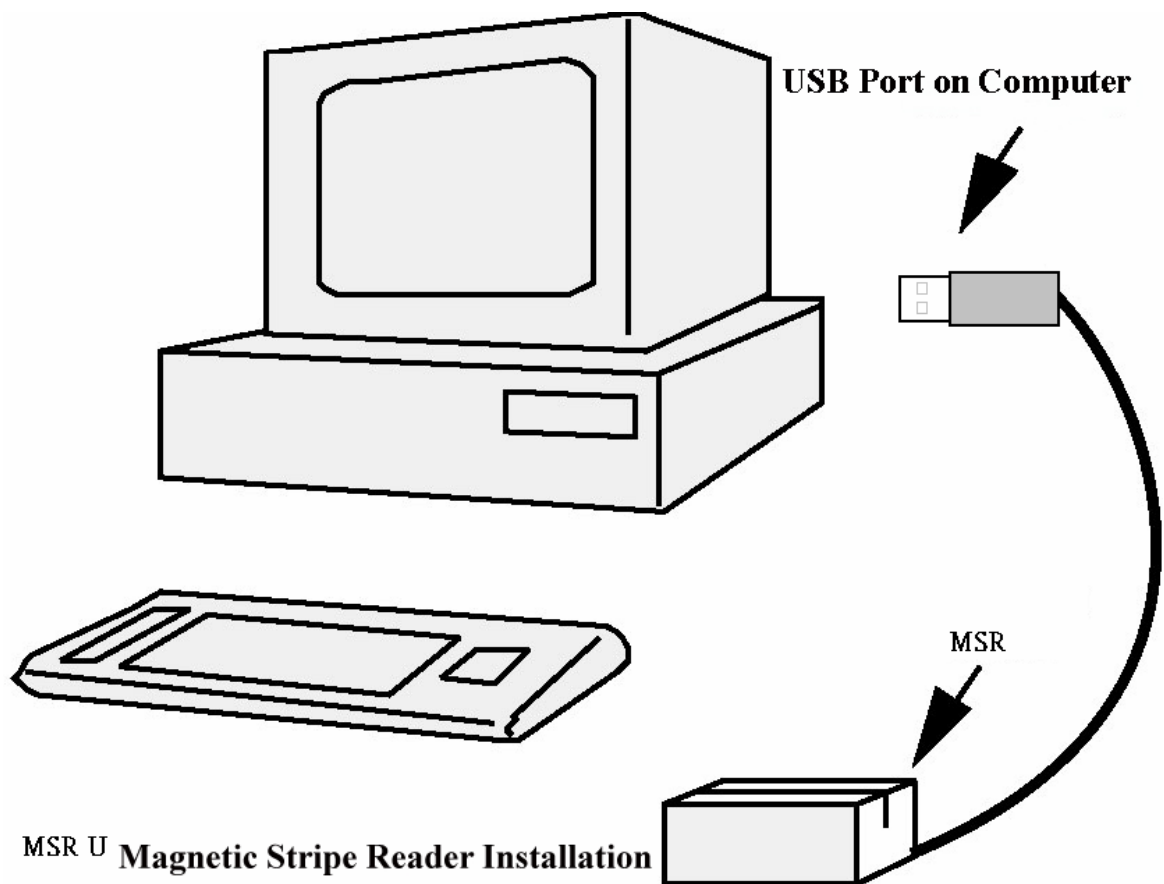
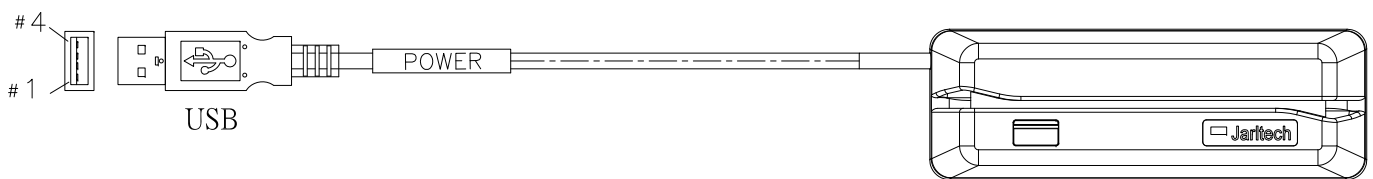


Figure 2-1

MSR USB will have “Beep” sound to indicate that it is ready for operation.

Step 2: Driver installation

v2.0.0.19 for Win98SE/ME

v2.0.2.1 for Win2K/XP/2003/Vista(32bit)

PL-2303 (H, HX, X chip version) Mac OS 8 & 9 driver v1.3.6 build 1, Prolific Edition

PL-2303 (Chip H/HX/X) Linux driver for RedHat 7.3/8.0/9.0 Only

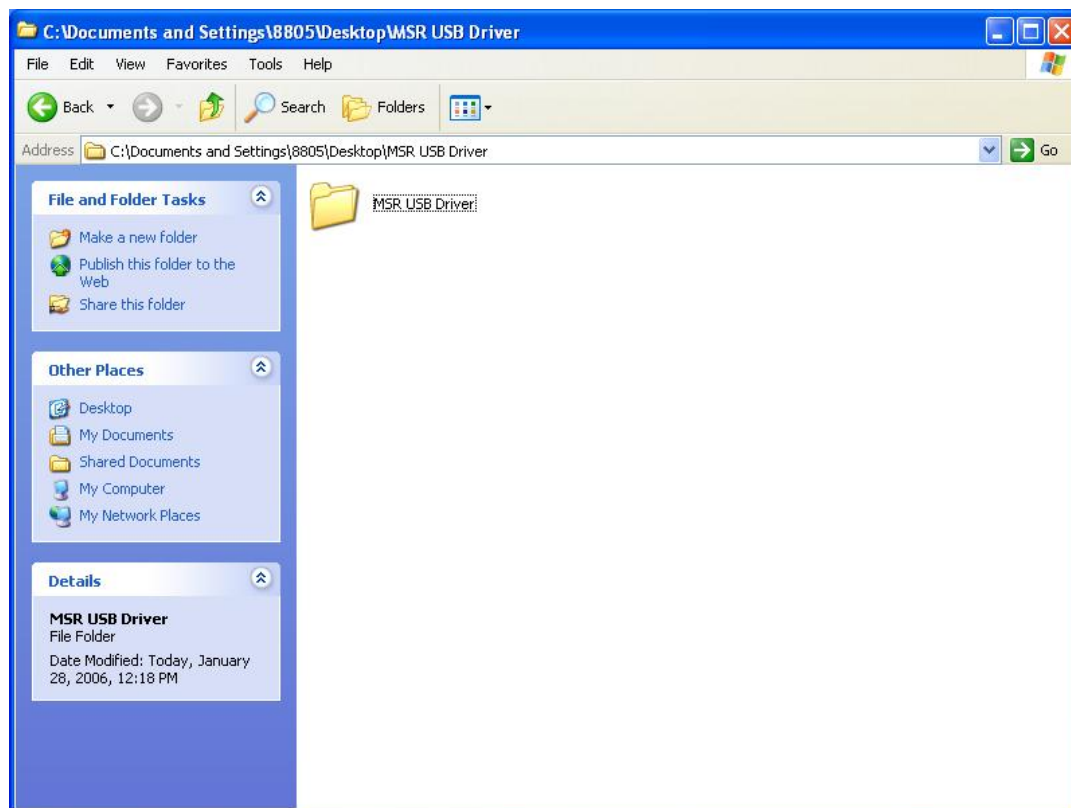
MSR USB simulates RS232 and Keyboard interface by USB with COM port selected.
Following sections are MSR USB driver, utilities installation.

MSR USB Driver:

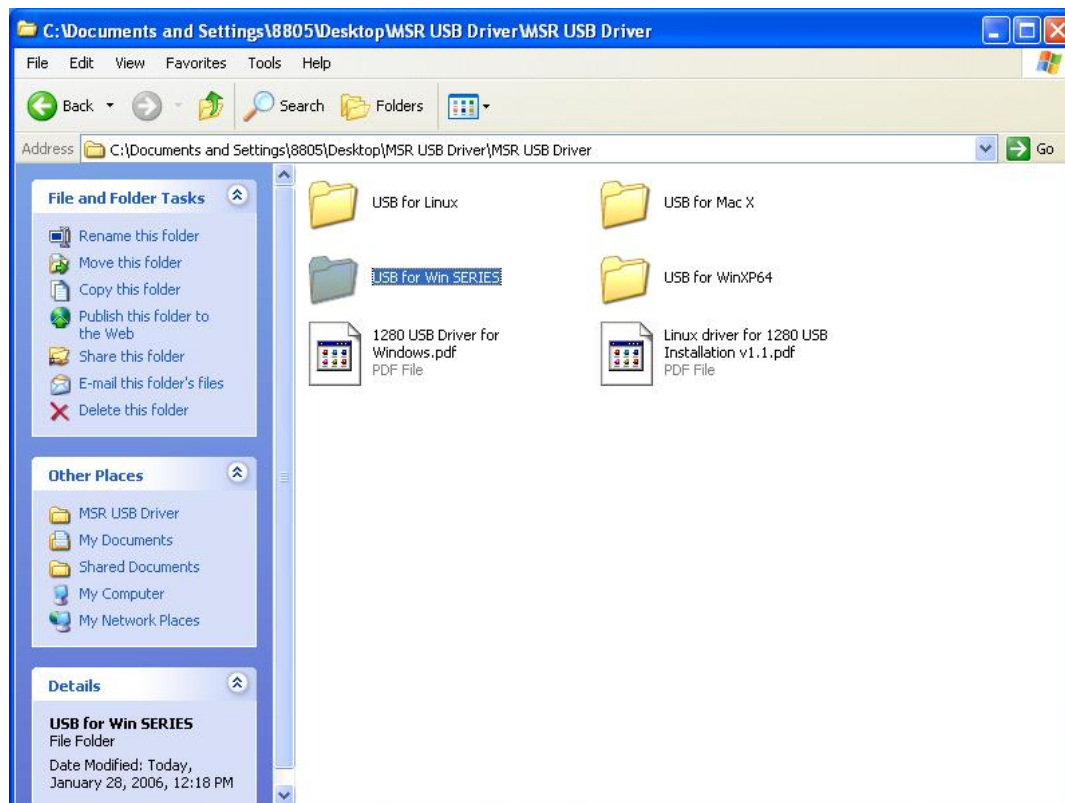
- a. Download MSR USB **Driver** from CD, and extract them to your hard disk.
- b. When you plug in the device, Windows operating system will detect new hardware for USB.
- c. Follow indicated steps to give driver and finish the installation.

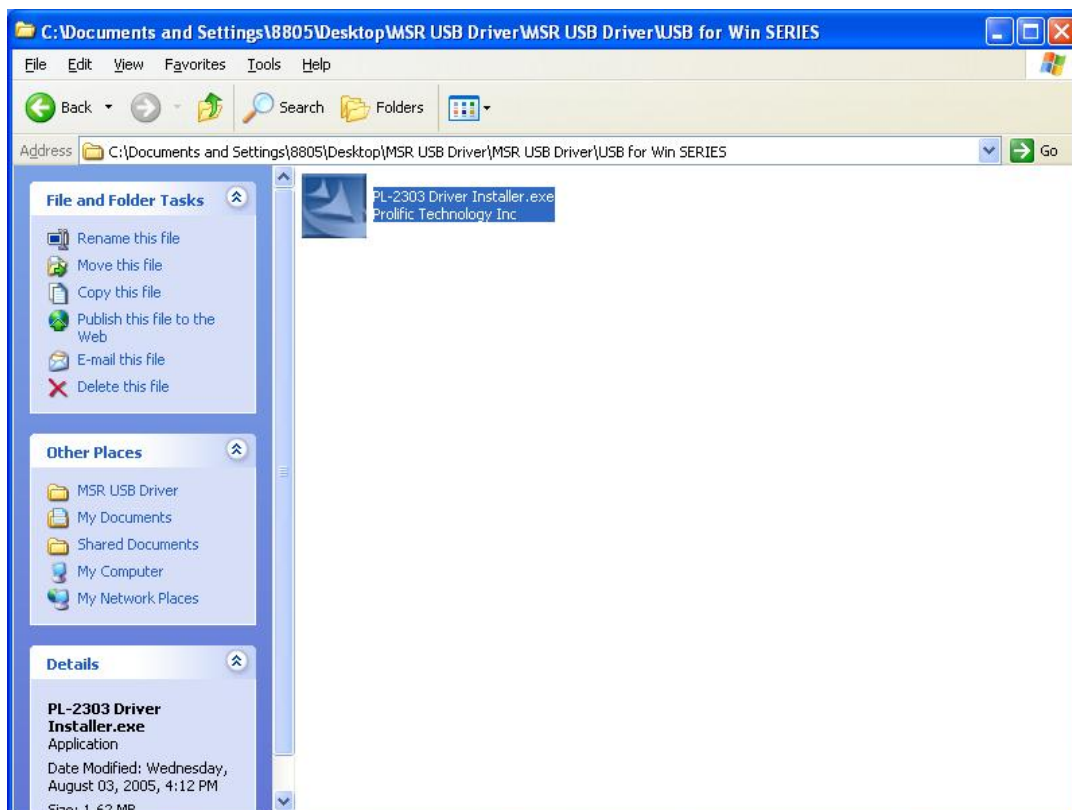
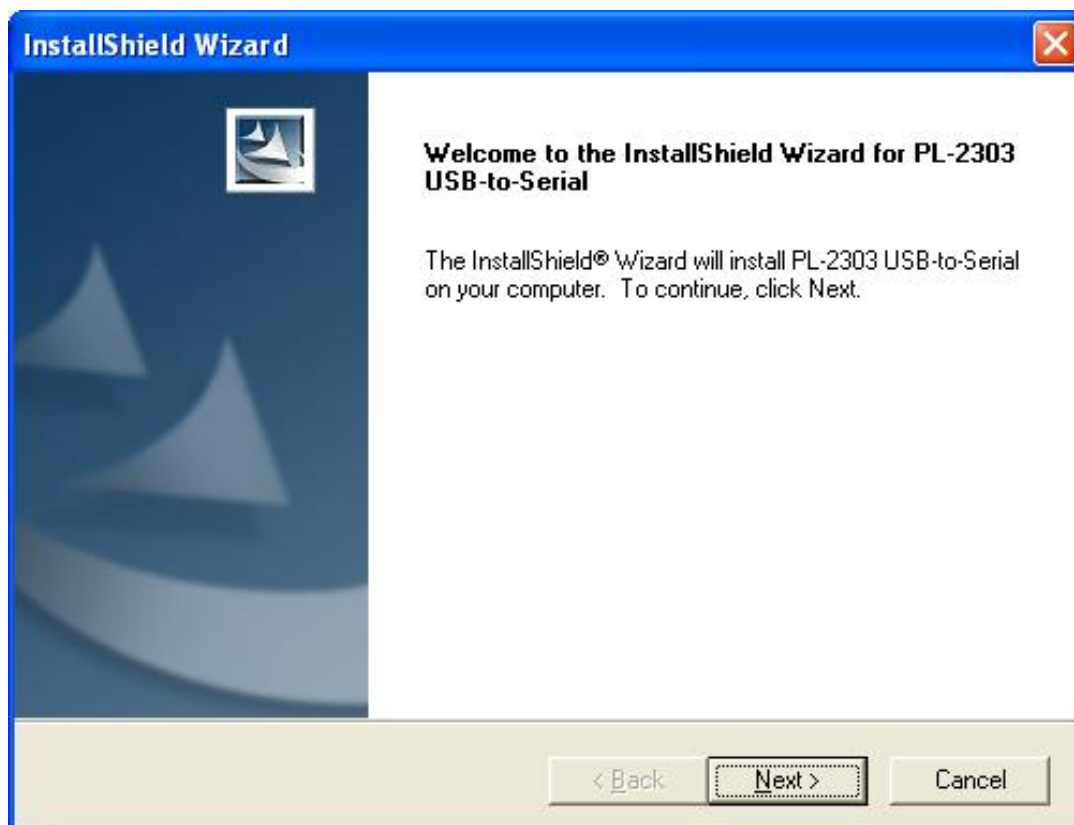
Install for WindowsXP

1. Insert CD Rom and select "MSR USB Driver" folder.

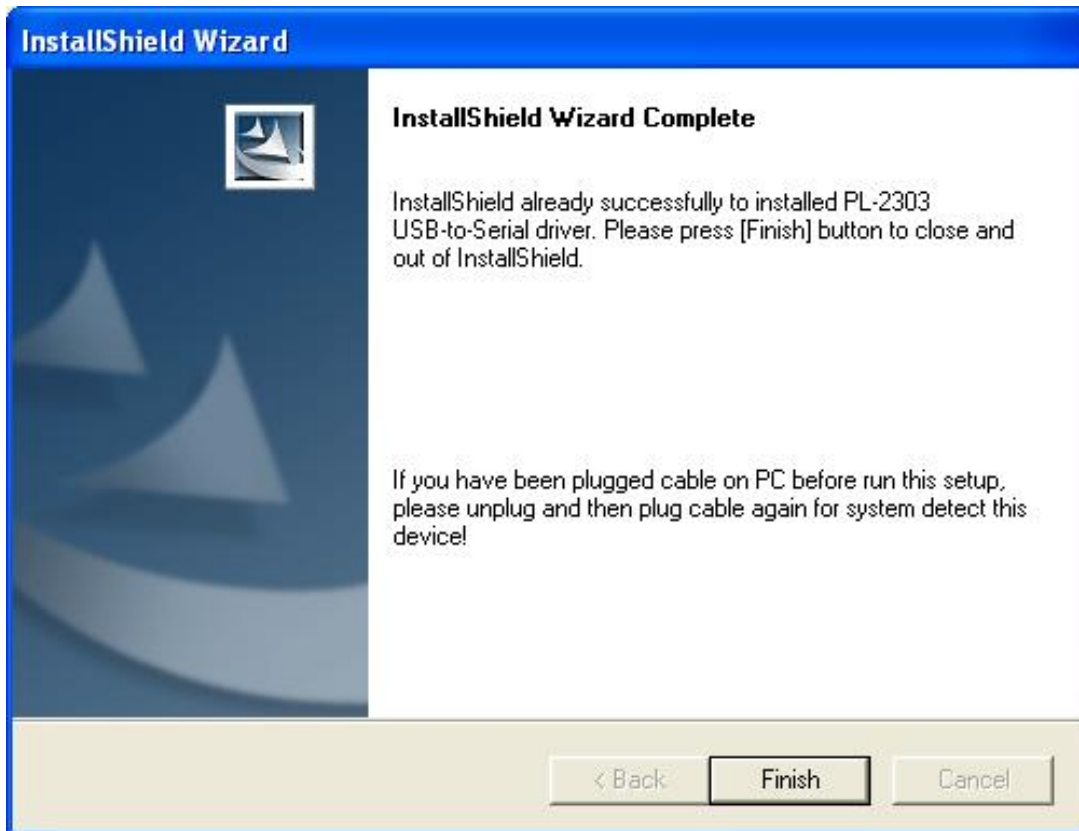


2. Then select "USB for Win SERIES" folder.



3. Select "PL-2303 Driver Install.exe".**4. When the setup screen appears then to select "Next" step.**

5. After installation complete select “Finish” and Restart the computer.



1218 USB Driver for Windows

Specification.:

1. Support Microsoft Windows 95,98,ME,NT,2000,XP
2. Support Visual COM port.
3. Plug and Play.

How to Install:

1. When you plug in 1218 USB, Windows operating system will detect new hardware for USB.
 - a. Follow indicated steps to give driver (Please point to the driver in the disk) and finish the installation.

How to Test Visual COM:

1. After you installed 1218USB driver, then hardware will assign an USB simulated COM for 1218USB. So, you have to check the USB assigned COM port from "Device Manager" of windows operating system before you starting to get data from 1218USB .
2. Use COM test software to open simulated com port .
Set com port settings to 9600,N,8,1
3. Stripes the magnetic card, tracks data will be shown on the screen.

Install for Linux

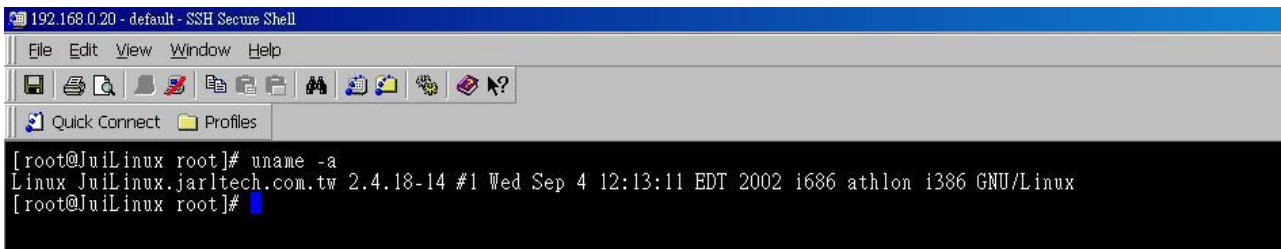
1280 USB Linux Driver:

Linux Driver Support for RedHat 7.3 / 8.0 / 9.0 Only

1. The determination uses at present the core edition(below blue color typeface is under the linux instuction).

```
[root@JuiLinux root]# uname -a
```

```
Linux JuiLinux.jarltech.com.tw 2.4.18-14 #1 Wed Sep 4 12:13:11 EDT 2002 i686 athlon  
i386 GNU/Linux
```

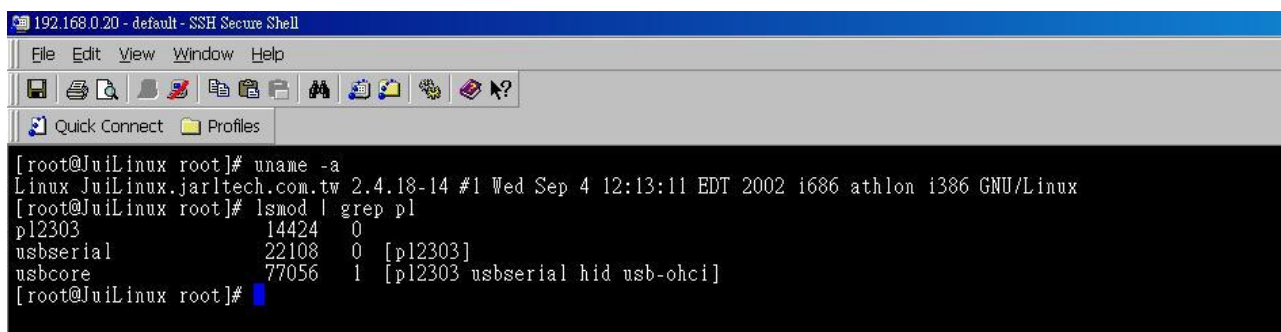


The screenshot shows a terminal window titled "192.168.0.20 - default - SSH Secure Shell". The terminal has a menu bar with "File", "Edit", "View", "Window", and "Help". Below the menu bar is a toolbar with various icons. The terminal content shows the command `[root@JuiLinux root]# uname -a` and its output: `Linux JuiLinux.jarltech.com.tw 2.4.18-14 #1 Wed Sep 4 12:13:11 EDT 2002 i686 athlon i386 GNU/Linux`. The prompt `[root@JuiLinux root]#` is followed by a blue cursor.

2. After install the product to detemine driver has is written down correctly(joins PC USB port to able to hear "Bi").

```
[root@JuiLinux root]# lsmod | grep pl
```

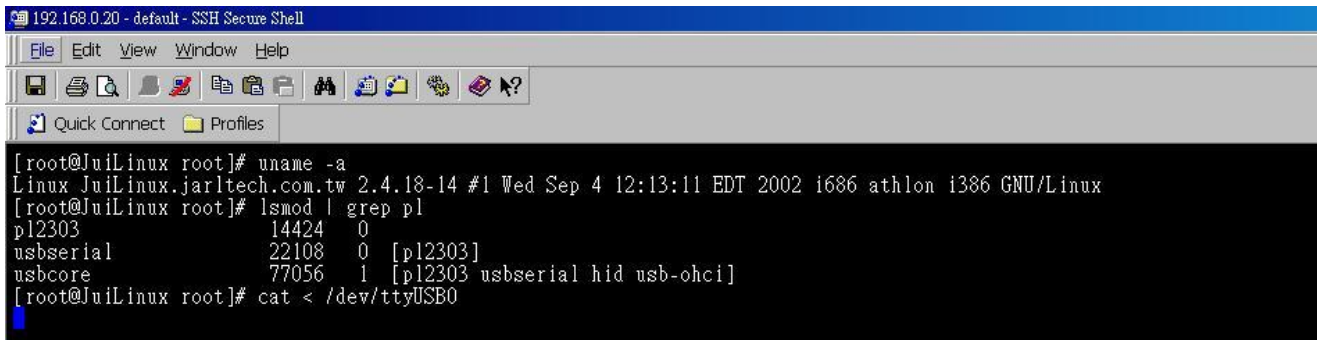
```
pl2303                14424    0  
usbserial             22108    0 [pl2303]  
usbcore               77056    1 [pl2303 usbserial hid usb-ohci]
```



The screenshot shows the same terminal window as before. The terminal content now shows the command `[root@JuiLinux root]# lsmod | grep pl` and its output: `pl2303 14424 0`, `usbserial 22108 0 [pl2303]`, and `usbcore 77056 1 [pl2303 usbserial hid usb-ohci]`. The prompt `[root@JuiLinux root]#` is followed by a blue cursor.

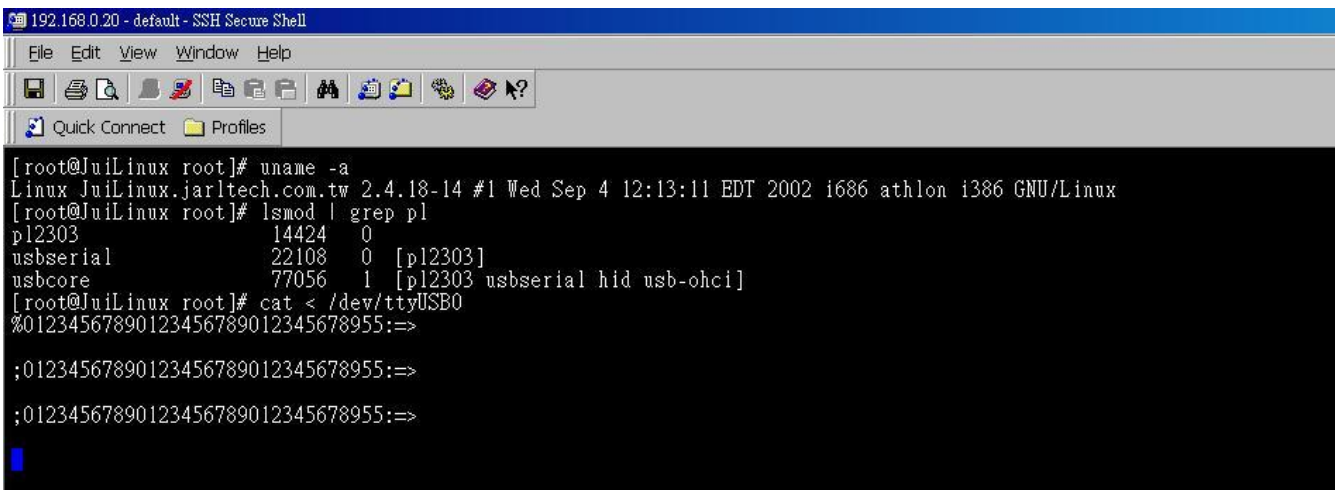
3. Picks up the material from USB

```
[root@JuiLinux root]# cat < /dev/ttyUSB0
```



```
192.168.0.20 - default - SSH Secure Shell
File Edit View Window Help
[root@JuiLinux root]# uname -a
Linux JuiLinux.jarltech.com.tw 2.4.18-14 #1 Wed Sep 4 12:13:11 EDT 2002 i686 athlon i386 GNU/Linux
[root@JuiLinux root]# lsmod | grep pl
pl2303                14424  0
usbserial             22108  0 [pl2303]
usbcore               77056  1 [pl2303 usbserial hid usb-ohci]
[root@JuiLinux root]# cat < /dev/ttyUSB0
```

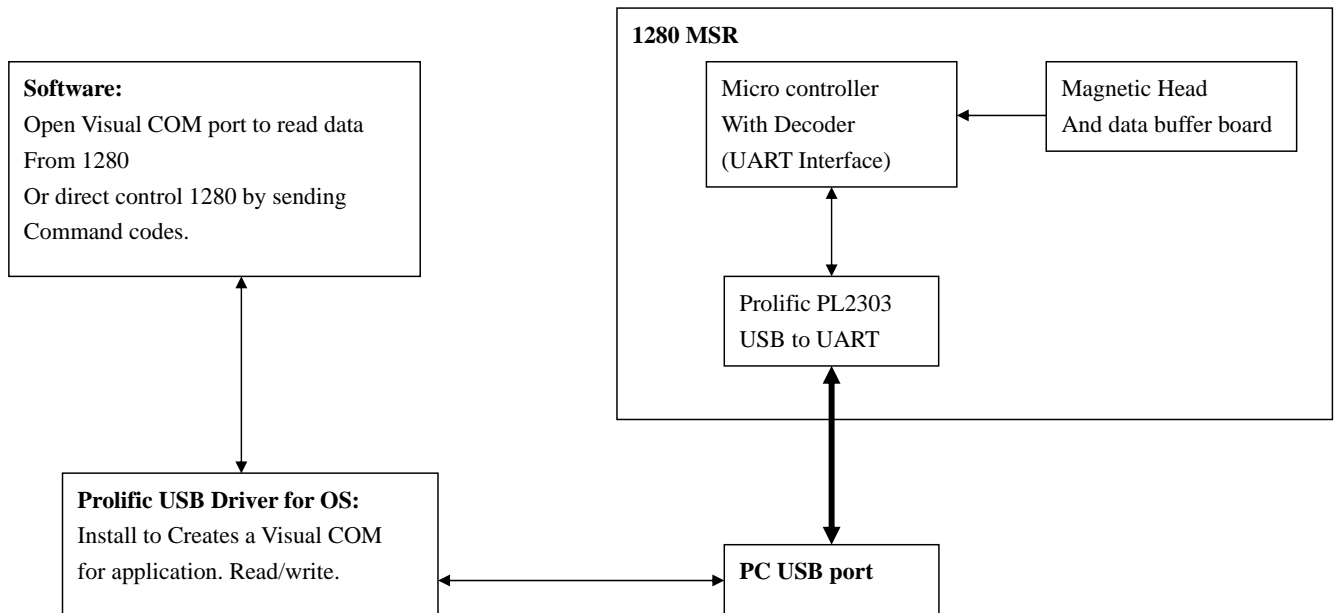
4. After the card brushes the material which the card produces.



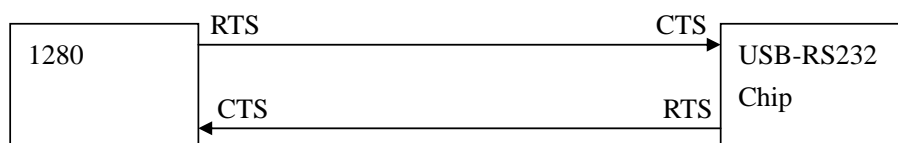
```
192.168.0.20 - default - SSH Secure Shell
File Edit View Window Help
[root@JuiLinux root]# uname -a
Linux JuiLinux.jarltech.com.tw 2.4.18-14 #1 Wed Sep 4 12:13:11 EDT 2002 i686 athlon i386 GNU/Linux
[root@JuiLinux root]# lsmod | grep pl
pl2303                14424  0
usbserial             22108  0 [pl2303]
usbcore               77056  1 [pl2303 usbserial hid usb-ohci]
[root@JuiLinux root]# cat < /dev/ttyUSB0
%01234567890123456789012345678955:=>

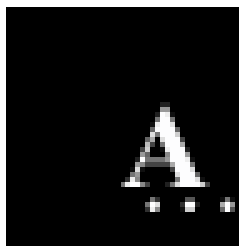
;01234567890123456789012345678955:=>

;01234567890123456789012345678955:=>
```

1280 USB / Device and Driver block chart v1.0**1280 Handshake with visual COM**

1. 1280 uses RTS / CTS handshake check with USB-RS232 chip.
2. When PC software needs to send data to 1280, check CTS of PC side first,
If not active, means 1280U is busy, PC software stop sending data, wait for CTS ready then start sending.
3. When 1280 needs to send data to PC, check CTS of 1280 side first
If not active, means PC is busy, 1280 stop sending data, wait for CTS ready then start sending.





Appendix I : Specifications

Model	1218		
Decoding Capability	Triple-tracks: Tracks 1 & 2 & 3		
Card Reading Speed	7.5 to 125 cm/sec		
	Bi-directional		
Magnetic Head Life	300,000 passes		
Status Indicator	Audible beep for each		
	Successful reading		
Programming Capabilities	Track selection		
	Prefix (7 characters max.)		
	Suffix (7 characters max.)		
	Field selection		
	Start and end sentinel		
	LRC selection		
	Inter-character delay		
	Inter-scan code delay		
	RS232 parameters (baud rate,)		
System Compatibilities	The standard RS232C and Keyboard interface operates with IBM AT, PS/2 and Compatibles.		
	The USB interface operates with USB port on IBM AT or compatibles		
Power Requirement	Model MSR K: from KB port.		
	Model MSR R: from external power supply		
	Model MSR U: from USB port		
Power Consumption	During operation: max 300 mA		
	While idle: 60 mA		
Physical Dimension			
Dimension (L)x(W)x(H)mm	Physical: 115mm x 46mm x 34mm		
	Package: 238mm x 146nn x 47mm		
Weight	N.W: 100g		
	G.W: 110g		
Color	Black, White		
Environment			
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)	Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	0% ~ 80% RH non condensing	Storage Humidity	10% ~ 90% RH non condensing
Certification			
EMC & Safety	FCC, CE, RoHS, Class A		

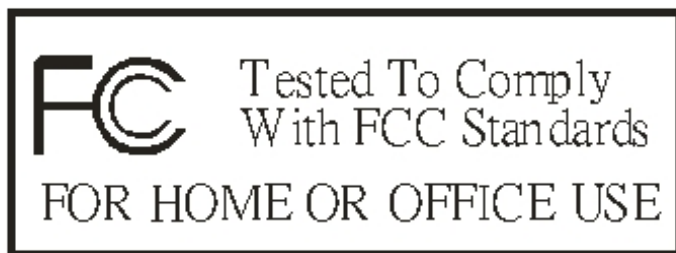
This equipment has been tested and found to comply with the limits for Class A digital device. Pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and if not installed and used in accordance with the instructions may cause harmful interference will not occur in a particular installation. If this equipment does cause harmful interference to Radio or television reception, which can be determined by turning the equipment off and on. The user is encouraged to try correct interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. This booklet is available from the U.S. government Printing Office, Washington, DC 20402, Stock NO.004-000-00345-4.

Caution: Any changes of modifications not expressly approved by the grantee of this device could void the user authority to operate the equipment.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received including Interference that may cause undesired operation.



Trouble Shutting

Q1: 1218 USB receives computer USB port, does the system require the driver?

A1: Unless it please install 1218 USB special-purpose driver, after not installing, whose name is will at device administrator -> join there aren't port, the business turn over of the materials points to this COM completely.

Q2: 1218 USB has Beep sound while paying by credit card, but are the materials unable to show on the computer?

A2: 1.Affirmation 1218U driver installs normally.

2.Confirm RS232 or COM used test the procedure and operate normally, and COM port opened is correct. consult A1 explanation)

3.Baud Rate confirming opening COM port is 9600.

4.Confirm the application program without other occupies this COM port.

5.If Beep sound is that long 2 is short, can't read the card materials or have mistakes for 1218, please check the state of cards or change cards to test.

Q3: 1218 USB is connected to computer USB port, but does not have any response?

A3: 1.1218U is damaged.

2.Computer USB port is damaged. (can confirm with other USB devices whether USB port is damaged)

Q4: 1218 USB transfer rate?

A4: 1. USB is transmitted 1.1 Edition.

2. Fictitious RS232 COM that publish, materials transmit Baud rate 9600.

Q5: Why does 1218 RS232 need outer 12v power?

A5: Because com port of PC standard is combined and exported in order to offer the power.

Q6: What function do 1218 inside switches have?

A6: Please consult 1218 Manual proves.

Q7: Why is it have computer to receive line of 1218K keyboard, pay by credit card materials show at screen?

A7: 1. If use WindowsXP or 2000, must connect Keyboard line well before entering Windows, in case of start the machine and has not connected keyboard ing because of these operating systems, enter the device of keyboard in connecting after

Windows, will have no response.

2.Please use the software that can receive keyboard to test, such as the note book, Word ,etc..

Q8: Why it will be normal Beep sound after 1218 series start the machine?

A8: After just having the power, there is very brief level sound of a response, after 1218 hardwares will be checked automatically, 1218K is 2 shorts. Sound that 1218USB/1218R grows for 2 LED display green. If a short 1 is long, and LED exchanges glimmering red and green, checks the mistake for 1218 CPU Ren's body. Please reexecute Ren movement that body upgrade. (1218K must need changing into the line material of 1218R even more, utilize RS232 line to make Ren's body to upgrade).

Q9: Why do the materials brushed out leak one yard of situations?

A9: 1. If it is 1218K, Windows system is busy to pay by credit card at the same time probably, or the software is too late to receive 1218K way of seeing the materials off is the same as standard keyboard, press with general Keyboard the same too fast, match different operating system or software sometimes and receive slow problems, propose using 1218 special-purpose programming tools come to adjust the speed that Keyboard send the materials.

2. If it is 1218 USB or RS232 edition, system busy probably, or software procedure .reception mode / software that receive literary style wrong.
Propose testing the procedure to confirm with standard RS232. (ex: Hyper Terminal ...etc)

Q10: Why Card Reader of his card send and pay by credit card the materials, in addition, discern yard in the front?

A10: Standard ISO card is it stipulate card have 3 rail, every rail materials the front have their ISO leading yard and ISO trailing yard to have. (For instance: The first rail is % ...) Person who have can see these yard off, can it is it should it send to take to set up to come by programming tool the beginning in 1218.

Q11: Why after brushing the credit card, besides presenting card number, are there other one bunches of materials in second course?

A11: The establishment of 1218 standards is to see the second rail materials off, if should read the card number of the credit card only, must turn on or off being inside 2 adjusts it for ON.

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