

# Javelin™

## Javelin J200i/J230i

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### User Guide



**Version: V 1.5**

*May 2014  
Specifications are subject to change without notice  
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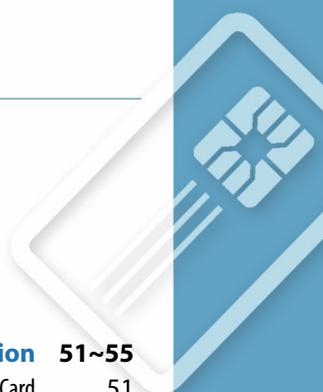
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## CAUTION

User should read caution information and keep in mind before use. Different icons remind important information as to safety. NBS Technologies is not responsible for physical harm to body or physical damage to the product occurred by user's careless use.



### **DANGER**

*Warns user of risk of losing life or being seriously injured.*



### **WARNING**

*Warns user of risk of being seriously or slightly injured, or damage to product.*



### **CAUTION**

*Warns user of slight damage to body.*



### **NOTE**

*Indicates information that supplements detailed information.*

**The information in this user manual is subject to change without notice.**



## **DANGER**

*Warns user of risk of losing life or being seriously injured.*

## **POWER**

- Do not use damaged power cord, plug or socket.
- Do not pull plug with power cord.
- Do not touch power plug with wet bare hand.
- Do not bend power cord or put heavy things on the power cord.
- Unplug during thunder and lightning or storage

## **INSTALLATION**

- Do not place the printer in wet, dirty place.
- Do not put lightings on the printer. Put the printer away from heat source.
- Unplug while moving the printer.
- Put the printer away from flammable source.

## **CLEANING**

- Keep the plug dry and clean
- Unplug the printer before cleaning. Do not use water or chemical cleanser.

## **MISCELLANEOUS**

- Take care not to spill any liquid on the printer
- In case of abnormal situation in the printer.  
Unplug the printer immediately and contact your dealer.
- Make sure that you use the adequate power adaptor.



### **CAUTION**

*Warns user of slight damage to body.*

### **INSTALLATION**

- Do not put the printer on unstable place.
- Avoid direct sunlight.

### **MISCELLANEOUS**

- Do not disassemble cover or protection parts.
- When you put hand inside the printer, do not operate it.
- Make sure that you perform cleaning and maintaining according to the instructions.
- Do not disassemble, repair, modify.
- Do not put heavy things on the printer.

### **CLEANING**

- Do not disassemble cover or protective parts.
- Do not operate printer with your hand inside.
- Make sure that you perform cleaning and maintenance according to the instructions

# Getting Started

## Introduction

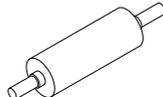
This card printer enables user to create cards easily and shortly in accordance with the card specifications you wish to get. You can get high quality color image with the card printer of dye sublimation printing. In order to meet customers' requirements, it provides options such as magnetic stripe, IC(Contact), RF(Contactless) encoding, automatic duplex as well as bar code, diagram, picture printing.

It is useful for creating bank cards, membership cards, loyalty cards and identification cards on PVC card.

## Contents in Package



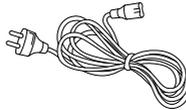
**Javelin J200i**



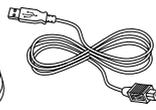
**CLEANING ROLLER**



**POWER ADAPTOR**



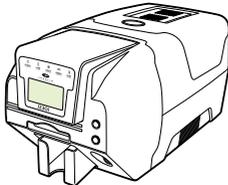
**POWER CABLE**



**USB  
PRINTER CABLE**



**DRIVERS,  
SOFTWARE AND  
DOCUMENTATION CD**



**Javelin J230i**



**STACKER  
(J230i only)**

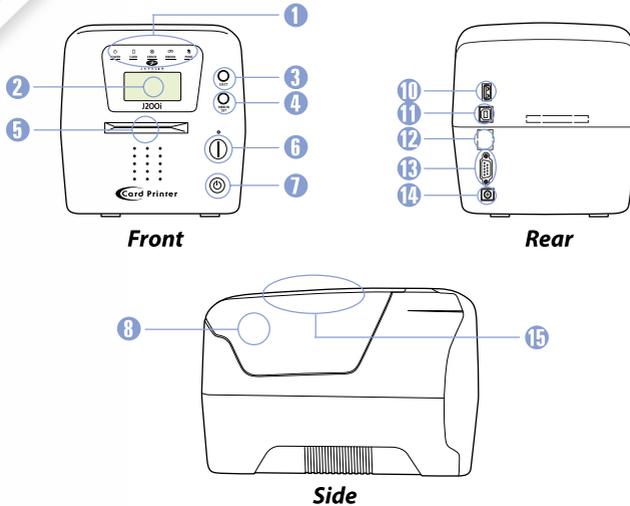


**USER MANUAL**

*Please make sure that printer and all the accessories are in good order.  
If any items are missing, please contact your dealer.*

## Printer Features

### Javelin J200i (Manual Feeding, Single-side Printing)

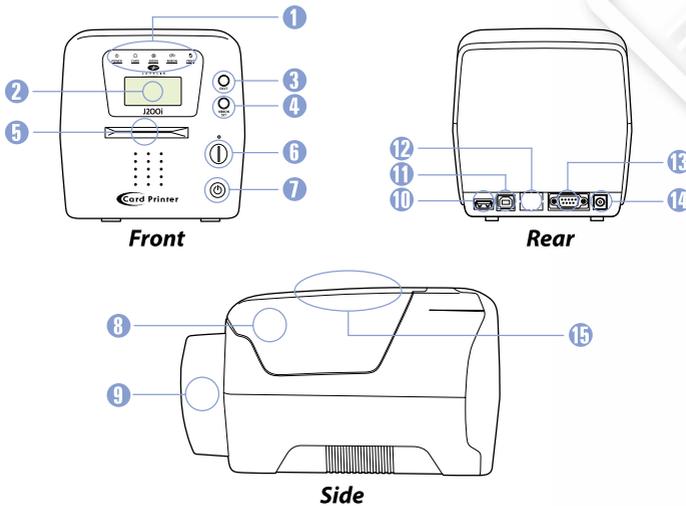


#### Features Description

1 LED Display	- LED shows the status of printer
2 LCD Display	- LCD panel displays the status of printer
3 Card Eject Button	- Button for card eject from printer inside
4 Ribbon Set Button	- Button for replacing or repositioning ribbon
5 Single Feed Slot	- One by one manual feed and Cleaning card slot
6 Mobile Chip Slot	- Mobile chip socket (Optional)
7 Power Button	- Power on and off
8 Printer Lid	- Open the lid to load a cleaning roller and a ribbon
9 Flipper	- Automatic Dual Side Printing (Optional)
10 USB Socket	- Used for memory stick HUB
11 USB Port	- Used for connecting USB cable between a PC and Card Printer
12 Ethernet Port	- Used for connecting USB cable between a PC and Card Printer
13 RS232C Port	- Used for connecting USB cable between a PC and Card Printer
14 Power Socket	- Used for supplying power
15 External RF	- External RF Card Read/Write Station (Optional)

*Even though we have two different models of Javelin J2xx, since there is no big difference in operating them, this user manual is designed for J230i dual-sided as the main reference.*

## Javelin J200i (Manual Feeding, Dual-side Printing)

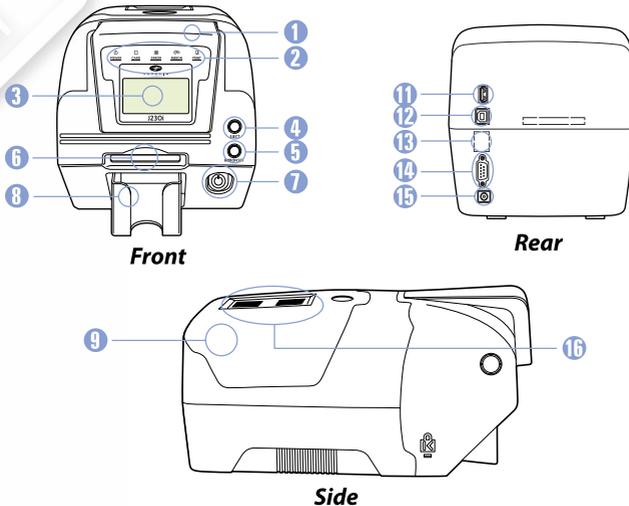


### Features Description

1	LED Display	- LED shows the status of printer
2	LCD Display	- LCD panel displays the status of printer
3	Card Eject Button	- Button for card eject from printer inside
4	Ribbon Set Button	- Button for replacing or repositioning ribbon
5	Single Feed Slot	- One by one manual feed and Cleaning card slot
6	Mobile Chip Slot	- Mobile chip socket (Optional)
7	Power Button	- Power on and off
8	Printer Lid	- Open the lid to load a cleaning roller and a ribbon
9	Flipper	- Automatic Dual Side Printing (Optional)
10	USB Socket	- Used for memory stick HUB
11	USB Port	- Used for connecting USB cable between a PC and Card Printer
12	Ethernet Port	- Used for connecting USB cable between a PC and Card Printer
13	RS232C Port	- Used for connecting USB cable between a PC and Card Printer
14	Power Socket	- Used for supplying power
15	External RF	- External RF Card Read/Write Station (Optional)

*Even though we have two different models of Javelin J2xx, since there is no big difference in operating them, this user manual is designed for J230i dual-sided as the main reference.*

## Javelin J230i (Automatic feeding single-sided printing)

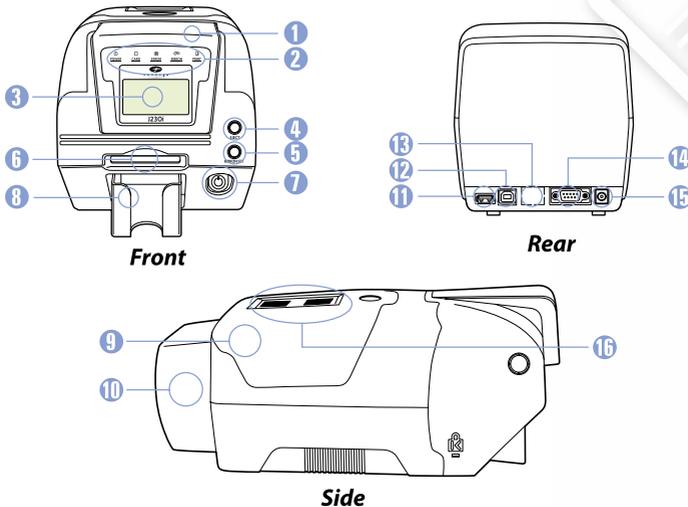


### Features Description

1	Input Hopper	– Loads up to 100 cards
2	LED Display	– LED shows the status of printer
3	LCD Display	– LCD panel displays the status of printer
4	Card Eject Button	– for ejecting card from the printer
5	Ribbon Set Button	– for synchronizing ribbon
6	Single Feed Slot	– Card Feed slot and cleaning card slot
7	Power Button	– Power on and off
8	Output Stacker	– Stacks printed cards up to 75
9	Printer Lid	– Open for replacing ribbons and cleaning
10	Flipper	– Automatic dual side printing (Option)
11	USB Socket	– Used for memory stick or USB
12	USB Port	– USB Communication Port Used for connecting PC and printer with USB cable
13	Ethernet Port	Used for networking printer (Option)
14	RS232C Port	Used for connecting PC and printer with RS232C
15	Power Socket	Power Socket Used for supplying power
16	External RF	External RF Recognize RF Card (Option)

*Even though we have two different models of Javelin J2xx, since there is no big difference in operating them, this user manual is designed for J230i dual-sided as the main reference.*

## Javelin J230i (Automatic feeding dual-sided printing)

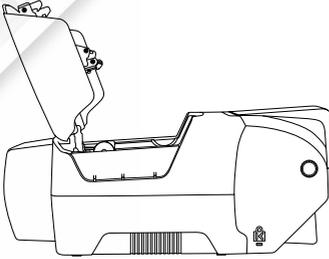


### Features Description

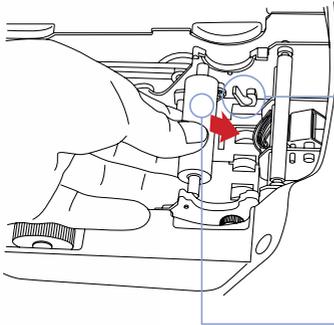
- |    |                   |  |
|----|-------------------|--|
| 1  | Input Hopper      | – Loads up to 100 cards  |
| 2  | LED Display       | – LED shows the status of printer  |
| 3  | LCD Display       | – LCD panel displays the status of printer                                 |
| 4  | Card Eject Button | – for ejecting card from the printer                                       |
| 5  | Ribbon Set Button | – for synchronizing ribbon   |
| 6  | Single Feed Slot  | – Card Feed slot and cleaning card slot                                    |
| 7  | Power Button      | – Power on and off   |
| 8  | Output Stacker    | – Stacks printed cards up to 75  |
| 9  | Printer Lid       | – Open for replacing ribbons and cleaning                                  |
| 10 | Flipper           | – Automatic dual side printing (Option)                                    |
| 11 | USB Socket        | – Used for memory stick or USB   |
| 12 | USB Port          | – USB Communication Port Used for connecting PC and printer with USB cable |
| 13 | Ethernet Port     | Used for networking printer (Option)                                       |
| 14 | RS232C Port       | Used for connecting PC and printer with RS232C                             |
| 15 | Power Socket      | Power Socket Used for supplying power                                      |
| 16 | External RF       | External RF Recognize RF Card (Option)                                     |

*Even though we have two different models of Javelin J2xx, since there is no big difference in operating them, this user manual is designed for J230i dual-sided as the main reference.*

## Loading Cleaning Roller

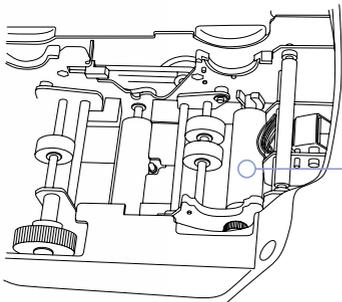


- 1 Open the printer's lid by pressing cover "OPEN" button and raise it fully.



*U-Shaped Slot*

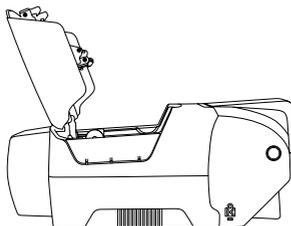
- 2 Slid the cleaning roller into the loading part and insert roller bar into "U-shaped slots" until it locks in place.  
Blue Cleaning Roller



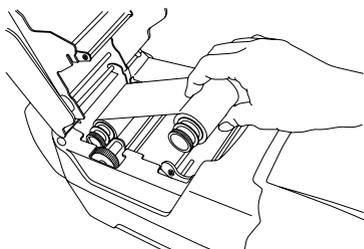
*Blue Cleaning Roller*

*Load a new cleaning roller or wash a used cleaning roller with each roll of printer ribbon.*

## Loading Ribbon



- 1 Open the printer's lid by pressing cover "OPEN" button and raise it fully.



- 2 Place the supply spool into the front slots and the take-up spool into the rear slot. Firmly close the printer lid.

*Please note: Incorrect lid closure may result in poor quality print.*

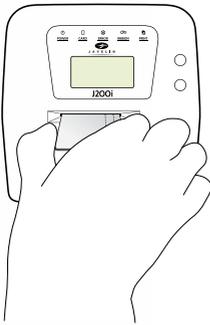
## Single Card Feeding

### Inserting Cards

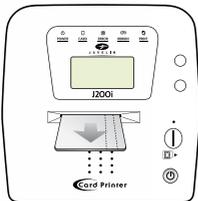
Cards are inserted one at a time into the slot at the front of the printer. The card is printed on the top surface and is ejected through the same slot.

**Note: Handle the cards only by the edges**

This figure shows the encoding orientation for contact smart-cards and cards with a magnetic stripe, on a J200i printer.



- 1 Insert card, one at a time, into slot at front of printer. In the case of magnetic stripe card, the stripe should be on bottom and to the right.

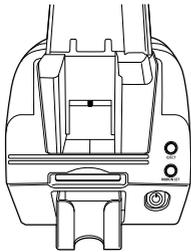


- 2 Card will be ejected through the same slot after printing.

If printing is desired on the side of the magnetic-stripe, the card should be inserted with the stripe on the top surface and to the right. For contactless smart-cards, orientation is not important.

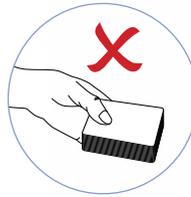
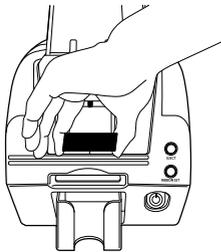
## Loading Cards

### Open the card feeding lid.

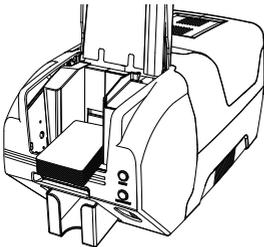


1 Open the card feeding lid.

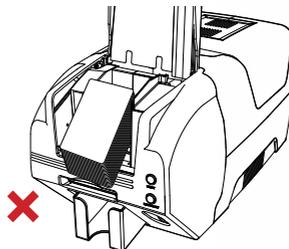
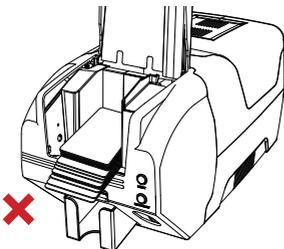
2 Load new cards to print at the input hopper well as shown in the picture.



3 Please be sure to stack cards in hopper as per pictures.



**Wrong Card Stacking could be a cause of card feeding error.**

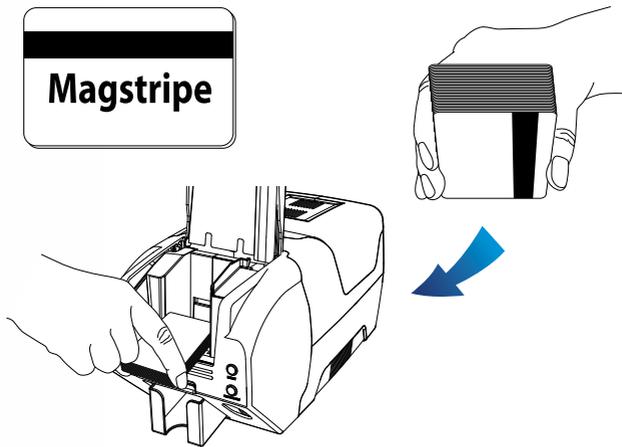


## Using Magnetic Stripe Cards.

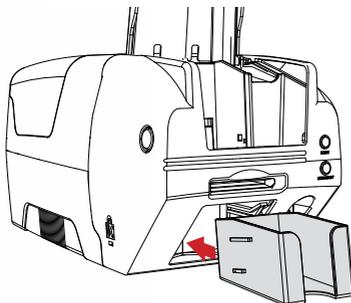
If your printer has the option of magnetic stripe encoding, you can print and encode the magnetic stripe (ISO 7811 track 1,2,3, Hi-Co/Lo-Co)

When you load magnetic stripe cards into the printer, make sure the cards are orientated correctly. The magnetic stripe should be facing down and to the right, as per picture below.

Magnetic Card Standard		: ISO 7811		
ISO 7811	Track	Track 1	Track 2	Track 3
	Recording Density	210 BPI	75 BPI	210 BPI
	Capacity	79 characters	40 characters	107 characters
		(7 bit code)	(5bit code)	(5 bit code)
Start/End code	%/?	;/?	;/?	

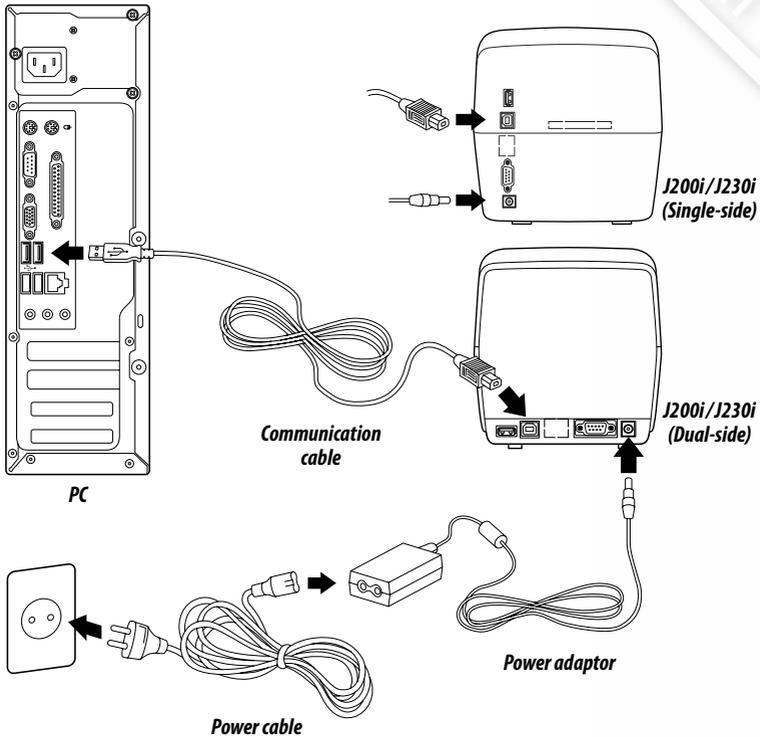


## Card Output Stacker for the J230i



- 1 Lock the card output stacker into slots of the front side.

## Power Device, Power Cable, Communication Cable



**Use only USB cable provided by NBS and PC having authentic USB 2.0.**

# Driver Software install

## PC Systems requirement

*The following operation systems are supported:*

- Windows 2000
- Windows XP (32/64bit)
- Windows Vista (32/64bit)
- Windows 7 (32/64bit)
- Windows 8 (32/64bit)

### **Computer:**

- CPU : Pentium III 1Ghz above (Pentium IV 1.5Ghz recommended)
- Memory : 128MB above (512 MB recommended)
- HDD : 1 GB above (5GB recommended)
- Internet Explorer 5.5 above (6.0 recommended)

*To install/remove the driver/software on Windows 2000/XP/Vista/7, 8, you must be logged in as the administrator.*

## Installing Driver

*Close all windows in operation (Recommended)*

- 1 Putting the installation CD into the CD-ROM Drive of the computer, the installation window will **“Open automatically or click Install .exe”**.

- The initial window of Card Printer installation program like the following will automatically open.  
“Click Start” to begin installation process.



- Select the software you wish to install. “Click Next”.



**NOTE:**

*When installing the printer onto a network, connect Ethernet cable to printers Ethernet port. Select “Network Software & Card Printer Driver”*

*Printer Driver before clicking “Next”. Switch Printer on (Ethernet install only) and when ready press Set ribbon prior to printing*

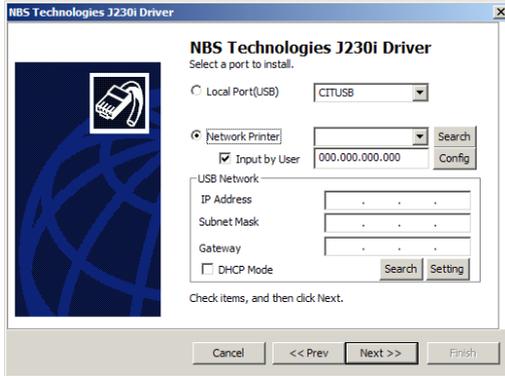
- 4 After reading license agreement for the software installation, **“Select Agree”** and then **“Click Next”**.



- 5 Select the port type you wish to install. **“Click Next”**.



- 6 If Network Software is selected. This window will be shown and it will display an IP address by automatically searching the Network to which the printer is connected.



- [Search] button : This searches Network Board.
- [Config] button : This configures Network architecture.
- [Input by User] : If an IP address is not searched automatically, you can create a port by inputting an IP address directly. You should use this feature in case that you can't search an IP address even though Network Setting is done.
- If an IP address on the right-hand box next to Network Printer is not searched.  
you may configure it by clicking Config button. Please refer to the Network Configuration Settings section.
- If an IP address is "192.168.0.31".  
network printer port will be address as "IP 192.168.0.31".



**NOTE:**

*If you stop the document printing, the file in printing can be mixed up with other spooled file.*

7 When installation is completed, please “Click Exit”.



8 Plug the USB cable into the printer and the PC and switch the printer on and wait for the LCD to say ready (press Ribbon Set prior to printing)

Check out the selected software is installed.

Check that the selected options are installed.

**Check Card Printer Driver installation**

- Click Start -> All Programs -> NBS TECHNOLOGIES -> printer
- Check NBS Card Printer is in Printers folder

**Check Network Printer Driver Indtallation**

- Click Start -> All Programs -> NBS TECHNOLOGIES -> Network



**NOTE:**

*If the printer fails to install correctly, please follow the instructions in the next section*



## Smart Card Reader Driver (Option)

This function is supported on specific models.

- 1 Plug the card printer device into the computer.
- 2 In the found new hardware dialog box choose install from a list or specific location. **“Click Next”**.



- 3 Click browse to locate the location of the install file, as shown above (C/DRIVERS/USB)

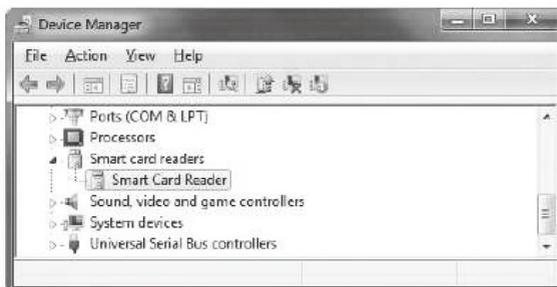
- 4 In the Hardware Installation dialog box, click Continue Anyway.



- 5 Click "Finish".

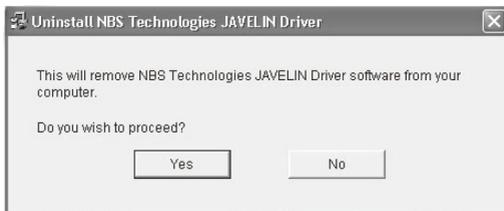


- 6 Check the installation of the Smart Card Reader. Click "start" -> Control Panel -> System -> Hardware -> Device Manager. Check the "Smart Card Reader" is installed in Smart card readers.



## Removing Driver Application

- 1 Click **"Start"** -> All Programs -> NBS Technologies -> Printer -> Uninstall. Click **"Yes"**.



- 2 When Uninstall is complete, Click **"OK"**.



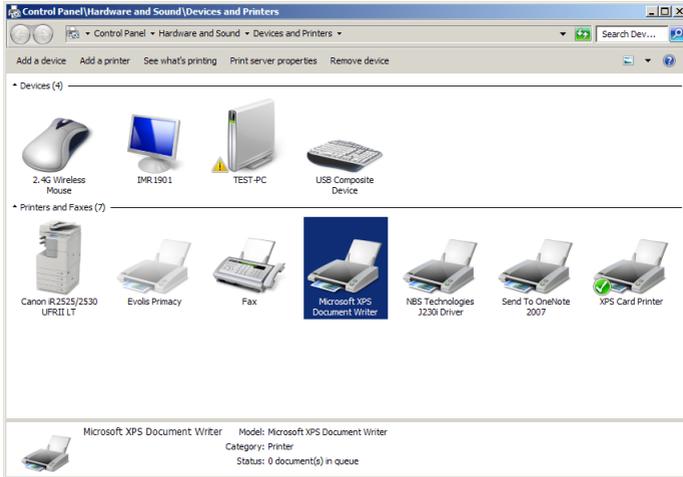
## Smart Card Reader (Option) Driver Uninstall

- 1 Open Device manager, Click "**start**", Control panel, system, Hardware and Device Manager.
- 2 Double-click the Smart Card Reader you want to uninstall.
- 3 Right-click the Smart Card Reader and then click Uninstall.
- 4 In the confirm device uninstall dialog box, click ok. The device is uninstalled successfully.
- 5 If you install this device again, turn off the printer and turn on again.

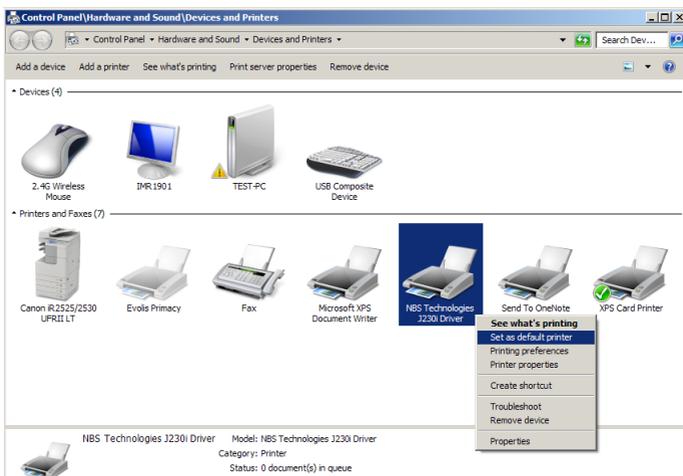
# Printer with Card Printer

## Setting up as the default printer

### 1 Go “Start -> Devices and Printers”

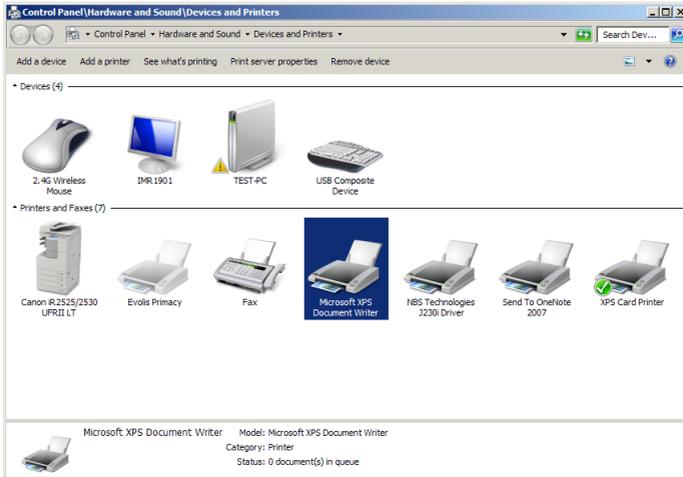


### 2 “Right - Click Card Printer Driver” and set as default printer

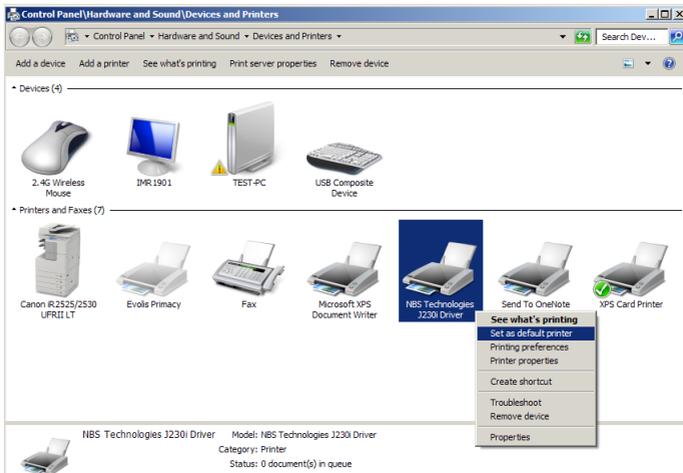


## Changing the printer port (for Driver printing)

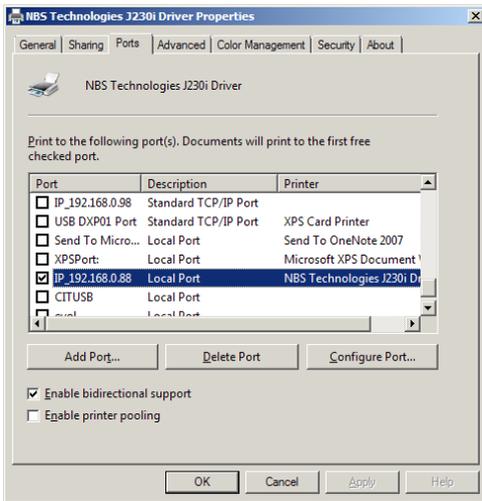
1 Go “Start -> Devices and Printers”



2 “Right-Click Card Printer Driver and select Printing Preferences” (or Printer Properties)



- 3 Select the Ports (or Detail)Tab.
- 4 Click the required port in order to print through either USB or Network
  - Printing to Network Port : IP\_192.168.0.34 (For example-Refer to Network Configuration Settings section on Page 36 and choose the port (IP address) you want to use



If the driver is installed successfully, “**Enable bidirectional support**” is selected automatically. If you meet a problem when you print through the network port, please unselect “**Enable bidirectional support**” and proceed with printing.

## Printing a Card

Open file of the Window application software you wish to print

Select the Print in the File menu.

- Make sure that you choose Card Printer .  
Select the printer settings you wish to print. Click Print or OK
- Ensure that the printing image is oriented in same direction (Landscape or Portrait) as that of the card.  
The preview function of the software will help you check it out.

## Canceling Print

*There are two ways to cancel printing*

- 1)*Canceling in an application software*
- 2)*Canceling the printing jobs at printing job window.*

*If a card jams whilst being printed, press the EJECT button at the front of the printer.*

*Please do not open the printer cover by pressing "Open" button during the operation, If the printer cover is opened during the operation the printer would be stopped automatically.*

*Keeping your printer operating with printer cover open, you can have the risk of injuries.*

*If you have any trouble, Please contact your dealer or the manufacturer.*

# Printer Driver Settings

*User can set up own printing environment with various functions the printer provides.*

## Opening in printer folder

You can modify the printer settings for all applications.

- 1 “Click **Start**”, point to “**Settings**”, and “**Click Printers and Faxes**.”
- 2 “**Right-Click Card Printer, select Properties**” (or Printing Preferences) and make the desired modifications.
- 3 Click each tab and window will open.
- 4 Upon completing settings. “**Click OK**”.

## Opening Printing Preferences on Application Software

The values input in printing program revert the to previous one when current operating program terminates.

- 1 Execute printing order in application program.
- 2 “**Click Printing Preferences**”.
- 3 Click each tab and windows will open.
- 4 Upon completing settings. “**Click OK**”.



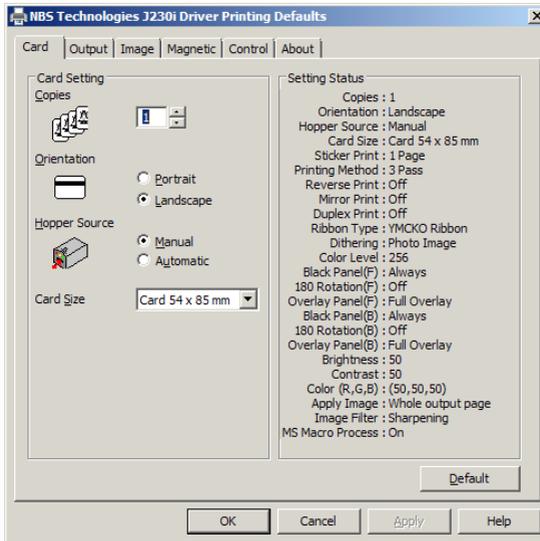
**NOTE:**

*You can find out the detail description for the printing preference at the next page.*

## Card Tab

### Opening Printing Preferences in Driver

The values input into the printing preferences in the driver will be saved.



#### Items Description

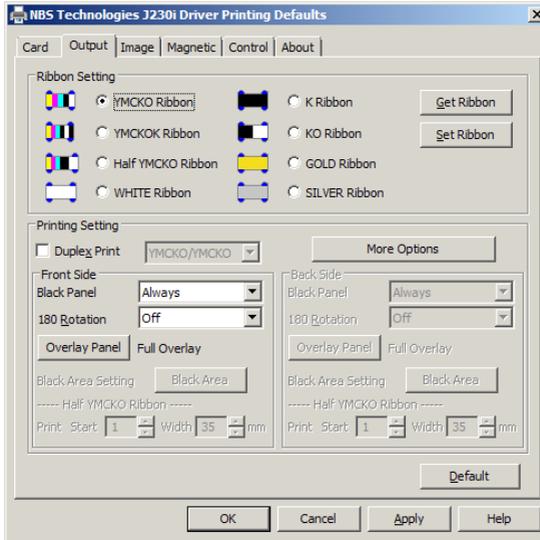
- Copies Sets the number of copies : 1 to 999.
- Orientation Sets the card orientation.
- Hopper Source Sets the source of the card supply in printer.
- Card Size Sets the size of card.



**NOTE:**

*Please refer to card specification of page 63 if unsure.*

## Output Tab



### Items Description

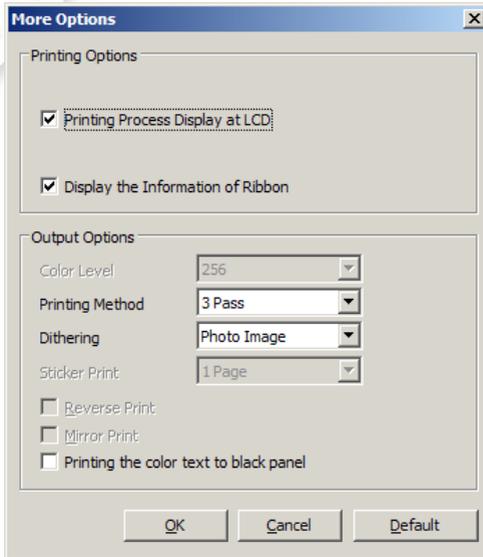
- Ribbon Type Sets the type of ribbon to be used
- Duplex Print prints the contents of a document on both sides of the card
- Black Panel, Select the K panel for printing black text and black images included in the design
- 180 Rotation will print the contents of the output data upside down on the card
- Overlay Panel option sets up the overlay panel for protecting the printed card.  
Options include : Full Overlay/No Overlay/Selected Area/Use Image File/Smart card ISO/Smart card AFNOR/Magnetic card



**NOTE:**

*For all Monochrome and Black/Overlay (KO) ribbons, you will need to set the ribbon manually.*

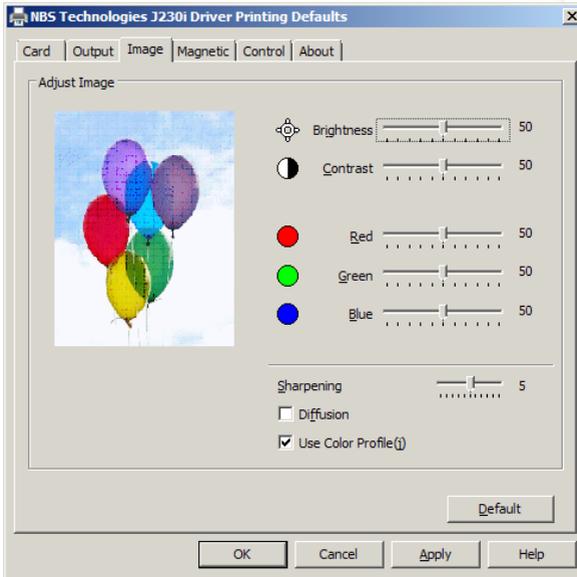
## More Options



### Items Description

- Using the Spooler, Sets the method of transmitting data to the printer
- Printing Process Display on LCD, Displays printing process on LCD
- Display the information of the ribbon, Displays residual counts of ribbons.  
The information can be displayed if the ribbon has an RFID tag and the count is below 40
- Color Level, when printing this sets the number of colors
- Printing method, During Printing, the print mode for color ribbon movement can be set.
  - 1 Pass, Transfer all data for YMCKO then prints
  - 3 Pass, Transfer data for each panel then prints
- Dithering, this is applied to the data transmitted to the black panel of the ribbon (YMCKO)
- Reverse print, Reverses RGB and prints
- Mirror print, Mirrors the printing data and print.
- Printing the color text to the black panel, if color text is required in black

## Image Tab



### Items Description

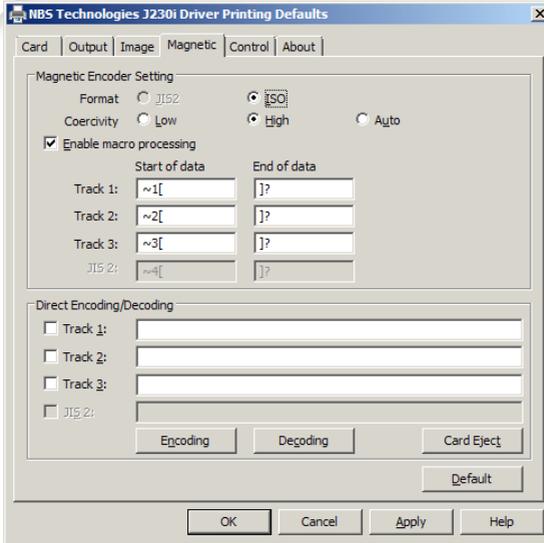
- Brightness - Sets the whole brightness of the printed card.
- Contrast - Sets dark areas as darker and bright areas as brighter
- RGB control  
The default RGB setting value is 50 and the controllable value step is 1-100  
Because the actual value steps of RGB (RED/GREEN/BLUE) is 0-255, 1 step on this control section means 2-3 level

You can see how the printing color will be changed with the control of RGB on the pictures left, balloons, but you can't see any change on the application S/W.

- Sharpening - The adjustable value steps of Sharpening is 1-10, and 1 step on this control section means 1 .5 level.
- Diffusion - Mixes the pixels of an image and makes it blurred
- Use Color Profile - Sets the color adjustment

## Magnetic Tab

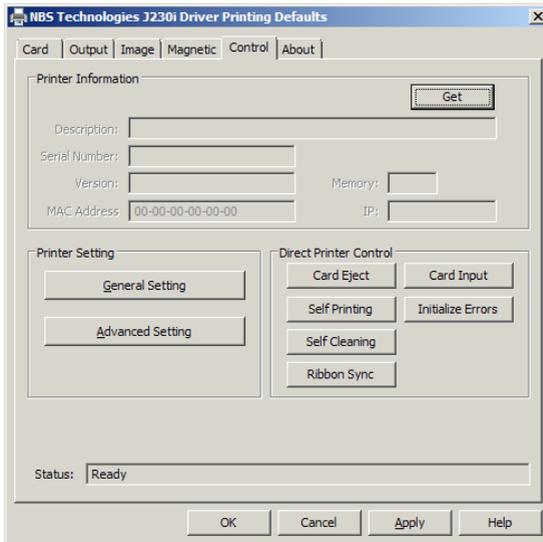
You write or read track information in the magnetic strip.



### Items Description

- Format, Sets the encoder format of the magnetic stripe
- Coercivity, Sets the coercivity type of magnetic stripe
- Enable macro processing, Send data to the magnetic stripe, when this option is set it detects the start and end of the encoding data from text format and processes it with Magnetic Stripe Encoding data.
- Encoding, Writes the data of selected track to the magnetic stripe
- Decoding, Reads the data of selected track from the magnetic stripe
- Card Eject, Ejects a card when the card remains inside the printer

## Control Tab



### Items Description

- Get, Retrieves the information from the printer and displays
- Card Eject, Ejects card from printer
- Card Input, Inserts a card that is ready at feeder
- Self-printing, Prints a self-test card
- Self-Cleaning, Initializes the clean cycle.
- Ribbon Sync, Synchronizes the ribbon.
- Initialize Errors, Removes the error state of the printer .

## General Setting Tab

**General Setting**

Print Speed (Mono)  Normal  Low

Auto Ribbon Sync  No  Yes

Card Ready Position  Eject  Internal

Card Input Option  External  Internal

Card Eject Time: 0 Card Insert Time: 20

Card Eject Option  General  Manual Slot  Stacker

Load Save OK

---

LCD Contrast: 0 (0~255) Get Set

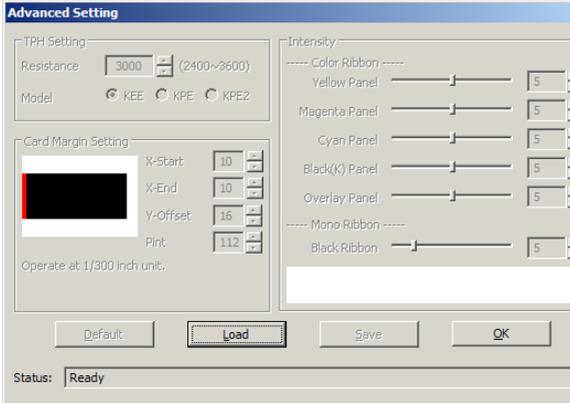
Ribbon Sensor Value: 0 White Get Blue Get

Ribbon Sensor ADC Set

Status: Ready

- Printing Speed - Mono
- Auto ribbon Sync - Color ribbon will be synchronized whenever lid is closed
- Card Ready Position -On initializing card can be situated inside printer or in feed hopper
- Card input option - For J200i only, On initializing card can be situated inside printer or in feed slot.
- Card Eject time - For the J200i, Card eject time for batch printing.
- Card Insert time - For the J200i, Card insert time for batch printing.
- Card Ejection Option
  - 1) General : from hopper to stacker (J200i) form manual slot to manual slot (J200i and J230i)
  - 2) Manual Slot : Always out to manual slot (J230i)
  - 3) Stacker : Always out to Stacker (J230i)
  - 4) Rear : Always out to Rear (J200i and J230i)

## Advanced Setting Tab



- TPH Resistance, Change the printhead resistance here
- Card Margin Setting, Offsets, default as above.  
(Note : Do not adjust these settings, they are critical to the printer operation)
- Intensity, Adjusts the darkness of the printed card.



- The "About" tab shows information about the driver, If you click on the picture, Card Printer website will open via your internet browser .

## Network Configuration Setting (Option)

How to install a printer on a Network

- 1 Install Network driver “**automatically or by manually clicking Install.exe**” file.
- 2 “**Tick Card Printer Driver box**”
- 3 “**Tick Network Software**” box then “**Click Next**” button.

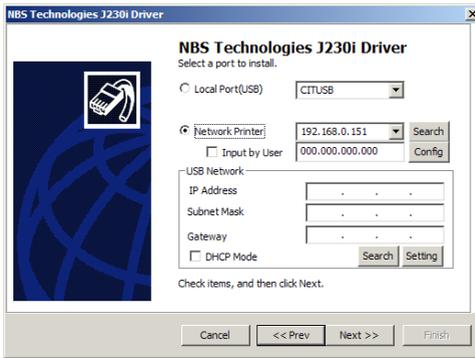


- 4 “**Click the Agree option then click the Next button**”.



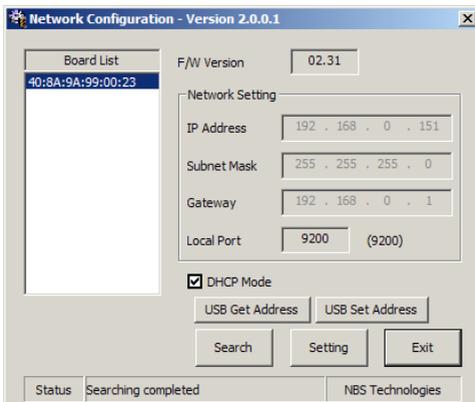
- 5 If you get a Windows Security Warning Message pop-up, “**Click Allow Access**” button.

## 6 “Click Network Printer”.



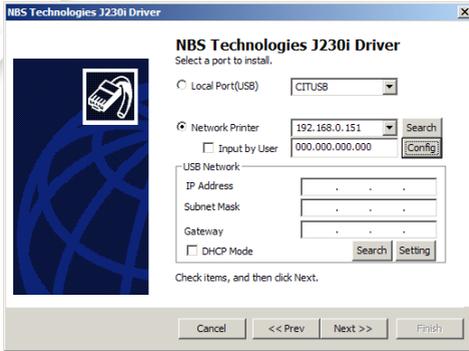
- 6-1 If the printer is connected to your network and you are using DHCP mode, the IP address will automatically appear in the drop down box. If the IP address is correct, “**Click the Next**” button.
- 6-2 If IP address is not shown in the drop down box, tick input by user and then click Config button. The Configuration window will pop up and you can select the right MAC address on the board list on the left side. You can also check the information for the Network Setting, which is automatically assigned from your DHCP server. If the information is correct, please “**Click the Setting**” button at the bottom. If the setting is ok, the printer will “**Re-boot automatically and Network setting complete**” will pop up.

If the addresses are not correct, you can edit and then click setting to save.



<Network Configuration Window>

- 6-3 If you want to connect to the Network using USB, manually input the IP address, Subnet Mask, and Gateway and set DHCP mode.



- 7 Card Printer S/W and Printer Driver Install window.



- 8 Please “Click Finish” for the completion of the Printer Driver Install.



## Network Configuration (Configure.exe)

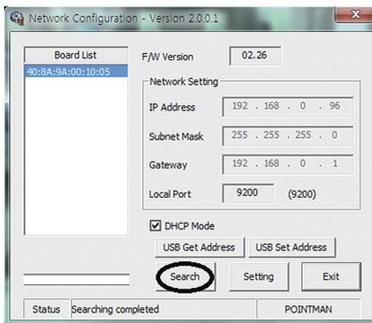
If you want to set up the Network after printer installation, set up with Network Configuration.

- 1 Go to “**Start -> All Programs -> POINTMAN -> Network -> Network Setting**”

## Network Setting–Auto Setting (DHCP supported)

Info) J200i and J230i - Any networks that have a TCP/IP network connection, can be configured in DHCP mode and the IP Address will be supplied by the network.

- 1 Search the connected Network Board by “**Clicking Search**”.



### Items Description

Board List – lists the searched network printers

F/W Version – show F/W version of the selected network board

IP Address – shows IP address of the selected network board

Gateway – shows gateway address of the selected network board

Local Port – sets a printing port through network printer. Please select J230i

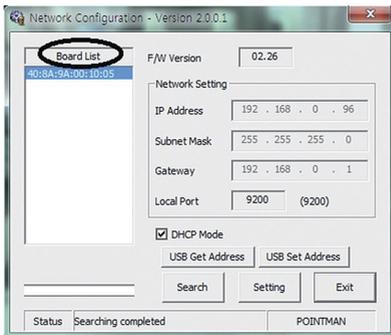
**DHCP Mode :** If the network system supports DHCP, IP is automatically set. If not, you should directly change address after being assigned. And then you set it in order to use network printer.

**Search Button :** Search network of a card printer

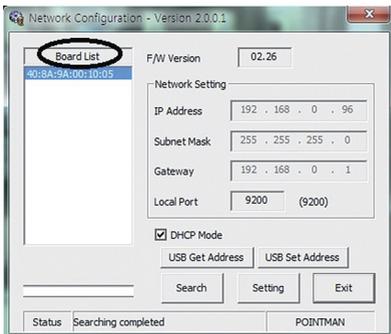
**Setting Button :** Save the changed network information. After changed, the card printer will be reset. You can use after 10 seconds.

**Exit Button :** Exit the program

## 2 Select MAC address on "Board List".

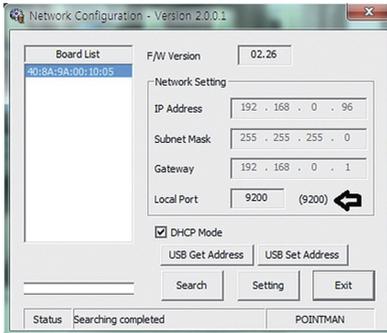


## 3 IP Address, Subnet Mask and Gateway are automatically assigned from DHCP server. However, you may input Subnet Mask and Gateway if you need to change them.

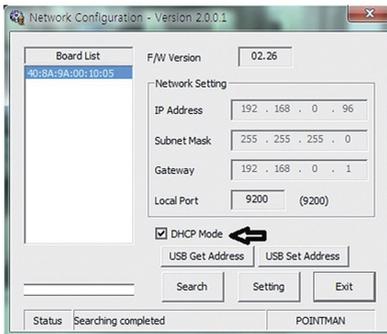




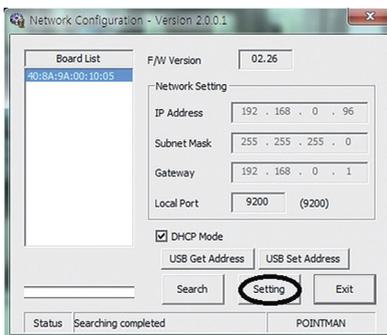
#### 4 Set Local Port for 9200 (This cannot be changed)



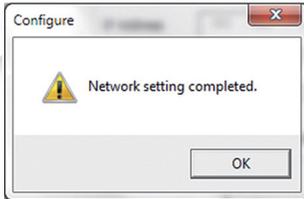
#### 5 "Select DHCP". (Please check DHCP box is checked)



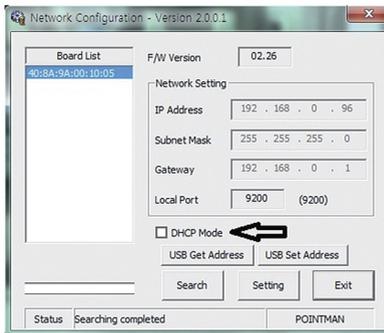
#### 6 "Click Setting" button, It takes approximately 30 seconds for this setting. If it is done setting, please reboot the printer in order to get a new IP address from the server.



- 7 Network setting completed window will appear, if setting is completed  
“Click OK”.



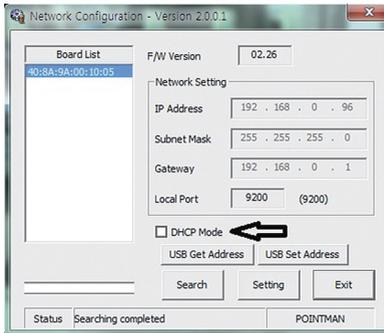
- 8 “Click Exit” to finish network setting or user can check the new setting by  
“Clicking the Search” button.



## Network Setting–Manual Setting

IP Address, Subnet Mask and Gateway should be assigned by Network administrator.

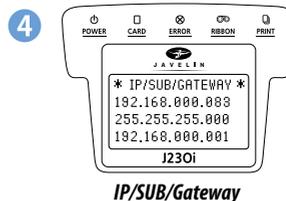
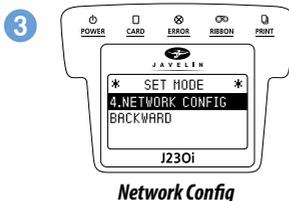
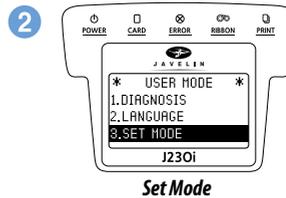
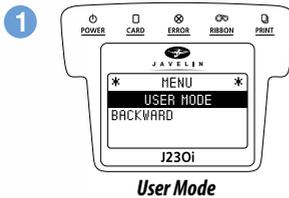
- 1 Search the connected Network Board by clicking “**Search**”
- 2 Select MAC address on Board List.
- 3 Input IP Address and Subnet Mask assigned by Network administrator.
- 4 Set Local Port for 9200 (this cannot be changed)
- 5 DHCP Mode box should not be checked. User should un-select this option when using manual setting.



- 6 Click Setting button, It takes approximately 30 seconds for this setting. If it is set, the printer will re-boot automatically. “**Click Exit**” to finish network setting or user can check the new setting by “**Clicking the Search**” button.

## Self-Check IP Address

- 1 Turn Power on the Printer
- 2 **“Push the EJECT and RIBBON SET button together”** at the same time until the LCD displays **“User Mode”**. Please **“Push RIBBON SET button”** till the user mode menu comes up then **“Push RIBBON SET button longer on 4. NETWORK CONFIG”** to check IP Address.
- 3 **“Push the EJECT button and RIBBON SET button together”** when checking IP Address is done. LCD display would be backward.





# Printer Operation

## Printing a Card

Printing with the J200i / J230i is similar with any other printer in windows environment.

The printer driver software is installed on your computer (see **Page 18~22**)

The printer is connected to the power source and the computer (see **Page 17**)

The printer is selected by either the operating system or the appropriate application software program.

Printer properties are set (the factory default values will be appropriate for many applications).

Card printing is directed by the appropriate application software program

## Setting printer properties

Printer properties can be set either at the operating system level or within the application software program used for printing cards.

Note : In the following description of setting printer properties, only those properties and options that are suitable for being set by the user are described. The user should not make selections or set parameters unless they are specifically described in this section.

Preference settings can configure the printer for landscape (wide) or portrait (tall) printing orientation, and allow the user to verify that the desired ribbon is installed in the printer.

Ribbon is selected via the output tab.

If the printer includes the optional magnetic card stripe encoder, encoding parameters and coercivity can be set.

## Printing a sample Card

Sample card designs are installed with the printer driver. Sample cards require Microsoft Word or Microsoft Paint application software. The cards are accessed via the start menu.

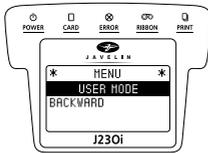
First set the NBS TECHNOLOGIES JAVELIN J2xx as the default printer and then follow these steps to design and print your first card:

- 1 Launch Microsoft Word, Depending on your computer configuration this may be done by Double-clicking the windows start icon, selecting programs, and navigating to Microsoft Word.
- 2 Go to the file menu and choose page setup.
- 3 Select the paper size tab, choose card, under orientation, select landscape
- 4 Select the margins tab, and set the top, bottom, left, and right margins to 0 (Zero)
- 5 Click OK to close the page setup window
- 6 The card appears on the screen
- 7 Design a card with both and colored text and with colored pictures.
- 8 Once you are ready to print, go to the file menu and select print
- 9 The printer will feed in a card and start printing (the data download time will vary depending on the complexity of the card design and the processing speed of your computer)
- 10 Once the printing job is complete, the card is ejected from the printer.



## Printing a self-test card

- 1 Power on the printer (No PC connection necessary) Make sure a ribbon is loaded and a card is in the hopper or ready in single feed slot.
- 2 **“Push the EJECT and RIBBON SET button together”** at the same time until the LCD displays **“User Mode”**
- 3 Please **“Push RIBBON SET”** button till the user mode menu comes up then **“Push RIBBON SET button longer on 1. DIAGNOSIS”** to go into Self Print menu. If you want to select different part, please push RIBBON SET button shorter.



*User Mode*



*Diagnosis*



*Self Printing Mode*

- 4 **“Push RIBBON SET”** button when **“Self-Printing menu is selected”**.

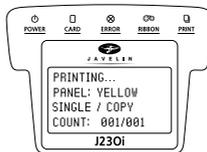


*Self Printing*

- 5 A self-printing card is then printed; see below for samples of YMCKO and Mono ribbon Self-Printing cards. **“Self-Printing done”** will be displayed at LCD.



*Self Printing*



*Self Printing Done*



- 6 **“Push the EJECT button and RIBBON SET button together”** when Self-Printing is done. LCD display would be backward.

## Printing via a PC Connection

- 1 Connect the USB to the PC and power on the printer. Ensure ribbon and cards are installed
- 2 Go to the **"Driver and Printing preferences -> Control tab -> Direct printer control -> Click Self-printing"**
- 3 Printer will display Self Printing. The printed test card will print and eject

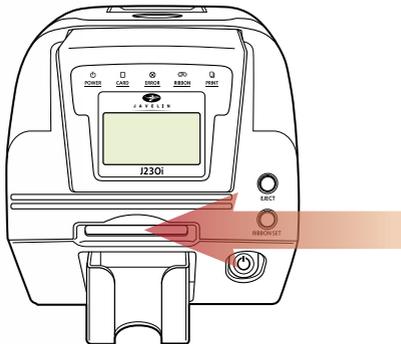
## Printing One Card at a Time



**NOTE:**

*The card feeder must be empty for printing single card using J230i printer.*

- 1 Insert a card into the single card entry slot



**Single Card Feeding Slot**

- 2 Go to your ID card issuing S/W and print a card
- 3 Wait until the printer has printed the card



# Instructions on Maintenance

## Maintenance of Product

### *Choosing the right Cards*

In order to get the best image quality and avoid Card Jam Error, please use the high quality grade PVC cards.

#### **Card Size**

- Standard (ISO CR80-ISO 7810)  
= 53.98mm W × 85.60 mm L (3.375" × 2.125")

#### **Card Thickness**

- Minimum - 0.40mm.
- Standard - 0.76mm
- Maximum - 1.2mm

#### **Card should be:**

- Glossy white.
- Free from the dirt and grease.
- Free from surface contamination.
- Free from pits and bumps in the surface
- Free from burrs at the edge of the card
- Completely Flat

#### **Card should not be**

- Heavy damaged card
- Card with heavy dirt
- Card with scratch
- Bended or deformed card
- Already printed on with a Javelin Printer

## How to Clean the printer

*Dirt or embedded contamination on rollers may cause printer problems. Follow the recommended maintenance procedures below.*

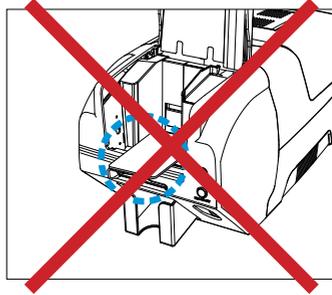
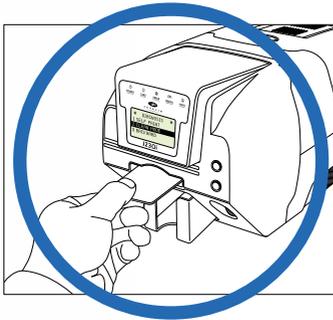
### **Cleaning the Inside Transport Rollers Using the Cleaning Card**

Intermediate clean when changing the ribbon (1,000 pass) or each month, whichever occurs first.

### **CR-80 Cleaning Card or Long T-shaped Card**

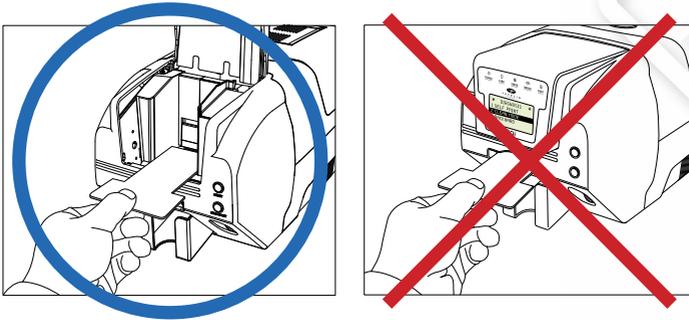
You can clean the inside of your card printer with using CR-80 Cleaning Card. You can clean the all rollers of your printer including feeder roller with long T-shaped Card.

How to insert a CR-80 Card: Using the single card feeding slot



**Caution:** No auto card feeder

How to insert a long T-shaped Card : Using the auto card feeder



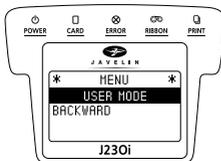
Please insert a 1/3 of long T-shaped Card into printer before operating cleaning



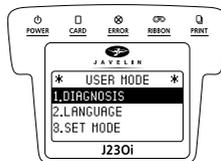
**Caution : No single card feeding slot**

## Standalone Mode (No PC connection)

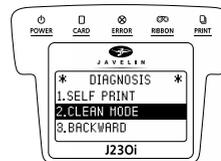
- 1 Turn off the printer, remove the cards and ribbon inside the printer and shut the printer lid.
- 2 With J230i, insert a CR-80 cleaning card into a single card feeding slot or a long T-shaped card into the card feeder. For J200i card printer, insert each the cleaning card into the front feeding slot.
- 3 Turn on the printer. After initializing, "**Push EJECT and RIBBON SET button together**" at the same time until the LCD displays "**USER MODE**"
- 4 Go to "**Self-Print menu: USER MODE ->1.DIAGNOSIS -> 2.CLEAN MODE**"



User Mode



Diagnosis



Clean Mode

- 5 Push Ribbon Set button till the cleaning is started.
- 6 The CR-80 card (short card) will move backwards and forwards inside the printer 10 times and then ejected. If you use a long T-shaped card, the printer will automatically operate for 10 sec and then stop.



**Cleaning**

- 7 Push the eject button and Ribbon Set button together when cleaning completed. LCD display would be backward.



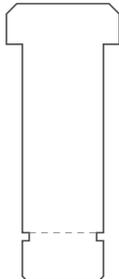
**Cleaning Completed**

- 8 Leave the printer for 2-3minutes, until the alcohol cleaner evaporates.

## **Using driver menu (PC connection required)**

- 1 Turn off the power and remove the cards and ribbon, shut the printer lid. Turn on the power.
- 2 Go to the "**Driver -> Printing preferences -> Control tab -> Direct printer control -> Click self-Cleaning**"
- 3 When front LED lights flashes, insert a CR-80 cleaning card into a single card feeding slot or a long T-shaped card into the card feeder. For J200i card printer, insert each the cleaning card into the front feeding slot.

- 4 The CR-80 card (short card) will move backwards and forwards inside the printer 10 times and then ejected. If you use a long T-shaped card, the printer will automatically operate for 10 sec and then stop the operation.
- 5 Leave for 2-3 minutes after card is ejected to allow alcohol to evaporate.



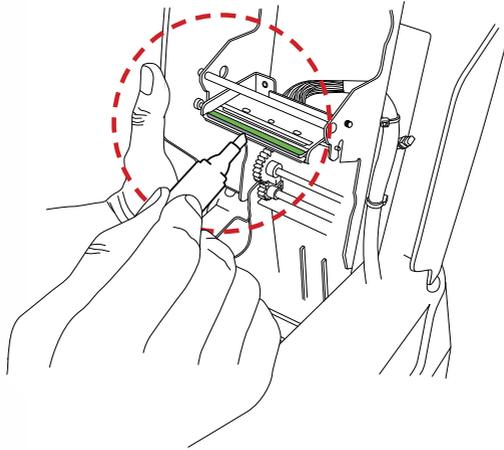
**NOTE:**

*If you are using a Javelin J200i card printer, it is necessary to cut the long T-shape card where indicated on the diagram before inserting it into the printer.*

## Thermal Print Head Cleaning Pen and Alcohol Swab

You can remove ink, dirt and contaminations build up on the thermal printhead and sensors with a cleaning pen and a alcohol swab.

- 1 Turn off the printer and open top cover.
- 2 Use a thermal printhead pen or an alcohol swab on thermal printhead and sensors.  
(Press the tube of alcohol swab to force the alcohol to impregnate the foam head)
- 3 Make sure the alcohol has evaporated before turning on the power, the thermal print head may be damaged if you used when wet.



### Caution

Ensure that the head of the swab is pointed away from your face Use alcohol impregnated foam head to clean the TPH. Clean only the part below the two marked lines. Do not touch the head with your fingers.



### Caution

You should recap of the cleaning pen for the reuse. Cleaning Pen is included only in the advanced cleaning kit. You can purchase a thermal printhead pen only from your reseller or the manufacturer, NBS.



## Washing the Blue Cleaning Roller

The blue cleaning roller will remove dirt and contamination on cards. Wash the roller with every new ribbon or every load of new cards. (The blue cleaning roller is the basic accessory of your printer package.)

- 1 Remove a blue cleaning roller from the printer.
- 2 Wash the cleaning roller under running water.
- 3 When dry, place the blue cleaning roller in the printer.

*Cleaning the printer regularly will improve printing and extend lifetime.*

# Troubleshooting

**In case front LED keeps on flashing or always on all the time.**

## Description of Error code

### a) Fatal Error

Code	Code Name	Description	Proper measures
10	TPH OPEN	- TPH Module Open in process of printing	- Check the status of TPH Module Open or Change TPH Open Checking Sensor.
11	TPH UP/Down Fail	- Fail in TPH Up or Down	- Check TPH Up / Down Module
12	Path Jam	- Card Jam on the Path	- Check the status of the Path or Jam on the path
13	TPH Temp Error	- Disorder in TPH temperature	- Check the temperature of working condition. Operating temp. : 0° C ~ 70° C
14	Ribbon Encoder Error	- Ribbon Broken or Ribbon End or Encoder Error	- Check the status of Ribbon and Ribbon Encoder
15	Media Error	- Error in Media	- Check the status of card (media) and Path Sensor
16	EEPROM Fail	- Error in EEPROM Read/Write	- Reboot or Change EEPROM.
17	IC Contact Module Error	- Error in the location of IC Contact Module	
50	Card Flipper Timer Out	- Error in Card Flipper Communication	- Power off -> Remove Cards (media) -> Reboot
51	Card Flipper Act Timeout	- Error in Card Flipper Communication	- Power off -> Remove Cards (media) -> Reboot
52	Card Flipper Home Position Error	-Error occurred in the Card Flipper Home Position	- Power off -> Remove Cards (media) -> Reboot
53	Card Flipper Turn Up Error	- Error in Card Flipper Turn Up	- Power off -> Remove Cards (media) -> Reboot
54	Card Flipper Card Input Time out	- Time out during entering the card into Card Flipper	- Power off -> Remove Cards (media) -> Reboot
55	Card Flipper Card Input Jam	- Jam occurred at the time of entering the card into Card Flipper	- Power off -> Remove Cards (media) -> Reboot
56	Card Flipper Card Jam	- Card Jam in the Card Flipper	- Power off -> Remove Cards (media) -> Reboot
57	Changer Card Exist	- Abnormal card is detected in the Changer	- Power off -> Remove Cards (media) -> Reboot



## b) Warning

Code	Code Name	Description	Proper measures
20	Command Error	- Receiving command out of Format	- Send command corresponding to Format
21	Invalid Parameter	- Receiving parameter out of Format	- Set Parameter corresponding to Format
22	Time Out	- Command Timeout	- Send command corresponding to Format
23	IC Contact Error	- IC Contact is not working	- Check IC Contact Module
24	MS Encode Error	- Error in MS Encoding	- Check MS Feeding
25	MS Read Error	- Failure in reading 3 tracks all in MS all track reading	- Check MS Feeding
26	MS Read STX Error	- STX not found in MS reading	- Check MS Feeding
27	MS Read Parity Error	- Parity Error in MS reading	- Check MS Feeding
28	MS Read ETX Error	- ETX not found in MS reading	- Check MS Feeding
29	MS Read LRCM Error	- Discordant LRCM in MS reading	- Check MS Feeding
30	IC Module Timeout	- Failure in IC Module communication	- Check IFM B/D interface and IFM B/D.
31	RF Module Timeout	- Failure in RF Module communication	- Check RF B/D interface and RF B/D.
32	SAM Module Timeout	- Failure in SAM Module communication	- Check SAM B/D interface and SAM B/D.
33	Card Flipper Module Time out	- Failure in Card Flipper Module communication	- Check Card Flipper B/D interface and Card Flipper B/D.
34	Card Input Timeout	- Card Input Time Out	- Check Hopper. Insert Card within pertinent timing.
35	Near end of ribbon	- Near end of ribbon	- Considering exchanging Ribbon
36	Ribbon End	- Perceiving End Mark of YMCKO Ribbon	- Exchange Ribbon
38	Ribbon Error	- Abnormal Ribbon installed	- Check Ribbon and Install certificated Ribbon.

*\* If you still have issues after clearing the error, please contact your dealer for assistance.*



### **Caution:**

*After the issue is resolved, use one of the methods below to resume normal printing.*

- 1) *Press eject button, then ribbon set button.*
- 2) *Switch the printer off then on, press the ribbon set button.*

## Other Issues

<i>Trouble</i>	<i>Solution</i>
Found frequently ribbons cut in the front edge of card when printing	- Check if X-start coordinate value on the printer driver is set correctly. The recommendation of X-start coordination value is $14 \pm 2$
Found frequently ribbons cut in the front edge of card when printing	- Check if X-start coordinate value on the printer driver is set correctly. The recommendation of X-start coordination value is $14 \pm 2$
Printer not found in Card Designer or application software	- Check that printer driver is correctly installed. - Check that communication cable is properly connected. -Reboot your PC.
Other than power LED, 4 Front LEDs Continuosly flash in sequence	-Check with dealer for firmware download. -Download the latest version of firmware for the printer. -Perform install using firmware install program.



# Ribbons

## Color Ribbons

<i>Color Ribbons</i>	<i>Specifications</i>	<i>J200i</i>	<i>J230i</i>
YMCKO	200 Prints/Roll	○	○
1/2YMCKO	300 Prints/Roll	○	○
YMCKO-K	167 prints/Roll	○	○

## Monochrome Ribbons

<i>Ribbon Type</i>	<i>Specifications</i>	<i>J200i</i>	<i>J230i</i>
Blue	1000 Prints/Roll	○	○
Black	1000 Prints/Roll	○	○
Red	1000 Prints/Roll	○	○
Green	1000 Prints/Roll	○	○
White	1000 Prints/Roll	○	○
Metallic Gold	1000 Prints/Roll	○	○
Metallic Silver	1000 Prints/Roll	○	○
KO (black and overlay)	500 Prints/Roll	○	○

# Technical Specifications

## Main Features

- Color & Monochrome printing
- Single Side or Dual Side printing
- Individual card slot for reprinting
- Easy to exchange ribbon & TPH
- Card design software “Javelin Designer software”

## Specifications

### ***Printer Standard Features***

- **Print Technology**  
Direct-to-card Dye-sublimation I Resin thermal transfer
- **Print Capabilities**  
One or Two Sided, edge-to-edge printing  
Full-color and monochrome printing capability  
Alphanumeric text, logos and digitized signatures
- **Print Resolution**  
300 dpi (11.8 dpm), 16.7 Million Color
- **Print Speed \*Under specific condition**  
Full-color Printing  
Single Side (YMCO) - up to 200 cards/hr.  
Single Side (YMCKO) -up to 170 cards/hr.  
Dual side (YMCKO-K) - up to 155 cards/hr.  
Monochrome up to 550 cards/hr.
- **Card Capacity**  
Automatic Feed 100-card input for 0.4mm -1.2mm cards  
70-card output standard  
Manual Single Feed : 1-card input



## Printer Option

- Magnetic Stripe Encoding : ISO7811 (Track 1, 2, 3),  
Coercivity : HiCo /LoCo
- Smart Card Personalization : ISO, EMV- Contact Landing Type
- RF ID Card : Mifare , ISO 14443 A I B, ISO15693

## Printer Specifications

### - Dimensions

- J230i Single : 403(L) × 192 (W) × 202 (H) mm  
Dual : 471(L) × 192 (W) × 202 (H) mm
- J200i Single : 292(L) × 192 (W) × 196 (H) mm  
Dual : 395(L) × 192 (W) × 196 (H) mm

### - Weight

- J230i Single : 5.5kg, Dual : 6.5kg
- J200i Single : 4.5kg, Dual : 5.0kg

### - AC Adaptor

- MANUFACTURER : CHANNEL WELL TECHNOLOGY
- MODEL : KLP-060M
- INPUT : 100-240V ~ 50/60Hz 1.7A / OUTPUT: +24V 2.5A 60W

### - Font : True Type Fonts via Window Drivers

### - Memory : 128 MB RAM

### - Interface : USB2.0 (High-Speed), RS-232 (Only Debugging), Built in 10/100 Ethernet

### - Operating System for Printer Driver

- All 32-bit and 64-bit compatible : Window ®8, Windows® 7,  
Windows Vista®, XP, Windows 2008 Server, Windows 2003 Server

### - Software : The Designer™

# Regulatory

## FCC



FCC IDENTIFIER : XTNTP9200  
Name of Grantee : TIT ENG Co.,Ltd.  
Equipment Class : Part 15 Low Power Communication  
Device Transmitter

Notes : ID Card Printer

### FCC Statement

**CAUTION** : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE** : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the 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.

## EU

This product is CE marked according to the provision of the R&TTE Directive (99/5/EC). Here by T.I.T ENG Co.,Ltd. Declares that this product is in compliance with the essential requirement and other relevant provisions of Directive 1999/5/EC.

# CE 0678

## RoHS



We hereby guarantee that all products that NBS will deliver directly or through any third party to you, do not contain Pb, Cd, Hg, CR+6, PBB, PBDE to the beat of our knowledge, Thereby our products are in accordance with RoHS2 Directive.

- Directive 2002/95/EC
- Directive 2005/717/EC
- Directive 2005/747/EC
- Directive 2011/65/EU









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May 2014  
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