CS-222e user manual

hiti

HiTi Digital, Inc.
www.hiti.com

CONTENTS

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Warranty

Refer to the warranty card supplied with your card printer package box for warranty terms, conditions and limitations.

Knowing your new printer

We thank you for choosing HiTi CS card printer, the beginning of our long term successful association with you together. With HiTi CS card printer, you will be able to enjoy easy operating, high quality plastic cards printing conveniently for personalized ID card, credit cards, membership cards and badges from various level of thickness and color style. Please ensure HiTi CS card printer to use the original consumables from HiTi Digital, Inc. For more details, visit our website at www.hiti.com .

Warranty Registration

Please do take time to register online at www.hiti.com and you will be rewarded with a special offer after registration is completed.

Getting ready to start

The main purpose of this user guide is to guide you to set up your printer step by step. Please take time to read through this carefully and complete the installation before start operating. This will save you time during installation and use, help you to understand more about this printer and its features. Should you discover any errors in this guide, please do help us by emailing us at info@hiti.com .

Assistant Icons

The following assistant icons will show up in this guide to indicate important information to be noticed.

| ⚠ Special warning notice	ⓘ More in-depth information notice

Chapter1. Getting ready

1.1 Checking box contents

HiTi CS card printer is supplied with several accessories and please do take time to check it closely.
The accessories contents list may vary depending from your region/location.
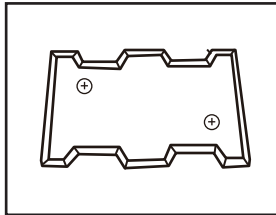
> **ℹ** If any of below item is missing, please contact your nearest HiTi customer support facility of
> your local HiTi CS card printer distributor.

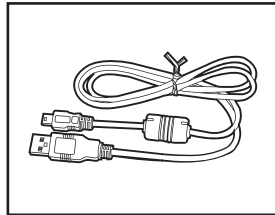Accessories provide with your HiTi CS card printer:
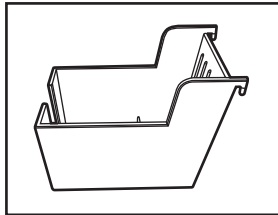
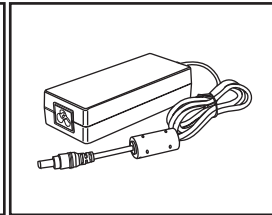|				
Card output hopper	Weight module	USB cable	Power adaptor	Power cord
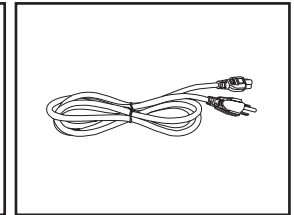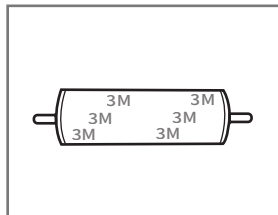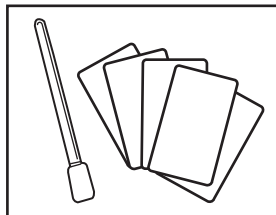
Cleaning roller	Cleaning kit

1.2 Appearance of the printer and key functions

Input Hopper

Power Switch

Ethernet port

USB port

Power port

Disused card hopper

Buckle of upper cover

Air Vent

Operation buttons

Single feed/eject card

Output hopper

Keys

LCM

Card thickness adjustor

Thermal print head

Ribbon holder insert location
(black/white)

Cleaning roller
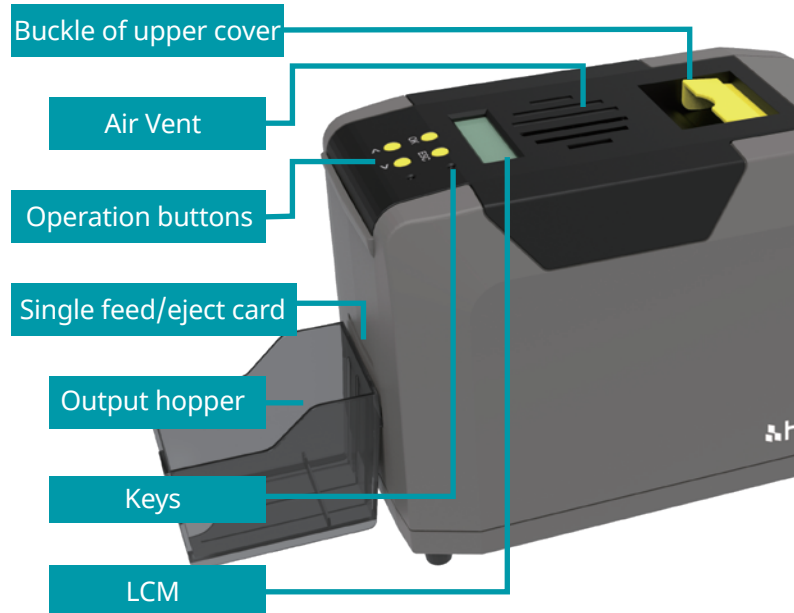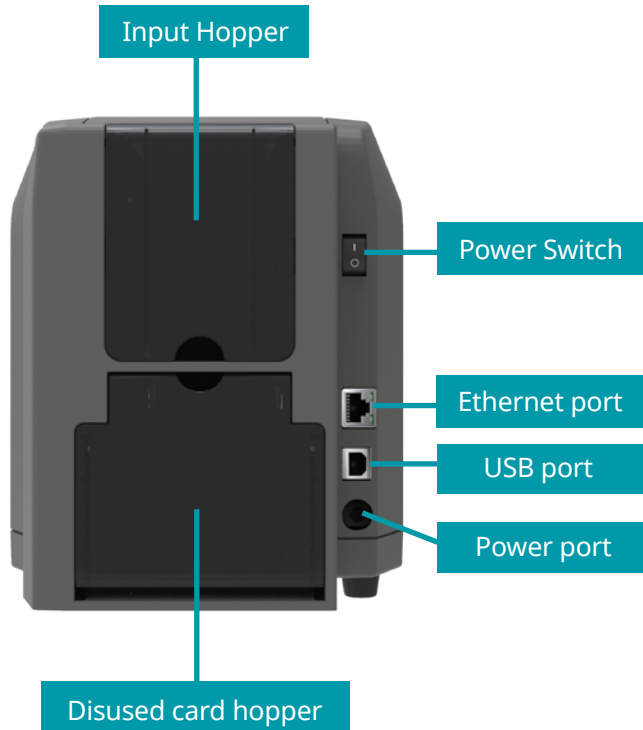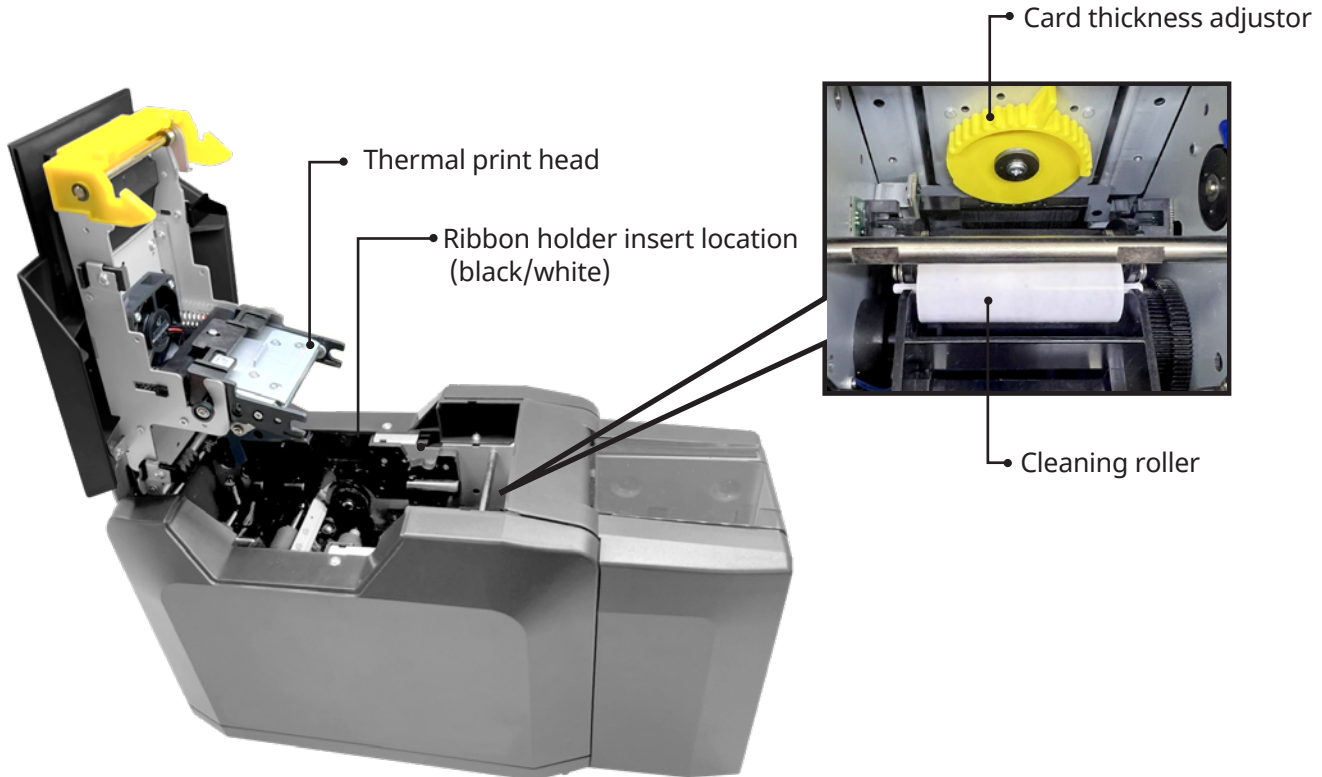
1.3 Installation

1.3.1 Ribbon Installing

Using original HiTi CS Card Printer Ribbon print kits will optimize your printer's performance and avoid damages to the printer. Use of non HiTi original consumables will void the manufacturer's warranty policy for the printer.

> ℹ️ To optimize printing quality, please engage printer cleaning every time when the ribbon is changed.

> ⚠️ Please make sure your ribbon film is facing top side during installation and also ensure the color of ribbon spool/core is matching to the ribbon adapter/holder.

a. Open top cover.

b. Place the ribbon to the ribbon holder according to the color of the spools and the stickers on the ribbon holder.
   The ribbon with white spool place on the holder with white sticker on it and the ribbon with black spool places on the other side.

c. Insert ribbon as shown.

d. Close top cover slowly and press until a click sound is heard.

a   b   c   d
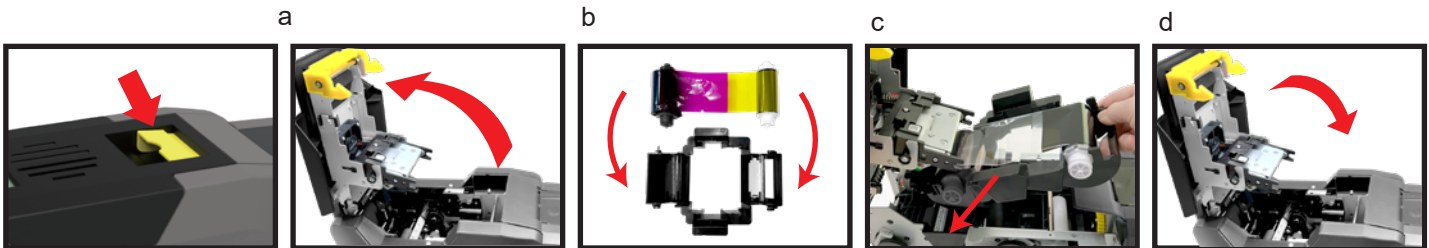
1.3.2 Printer Connecting (Power / USB / Modules)

Power

a/b. Connect power cable to power adaptor, then plug the power connector to printer's power socket

c.   Plug the power plug to an earthed power socket

⚠ Please make sure the power plug is connected into a properly protected and earthed electrical source.
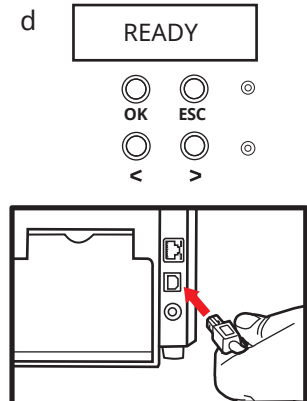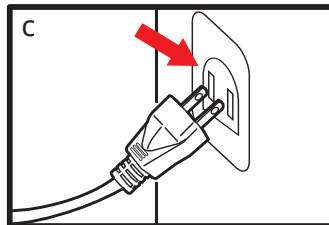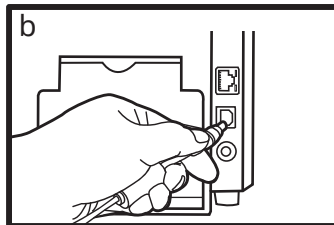
⬆ Switch ON with printer ON/OFF button to power up the printer.
Once LCM control panel light up and display "ready", it indicates the printer is working.

⚠ For your own safety, please make sure the power cable is always unplugged before attempting any service maintenance work.

d. Please power off the printer and unplug power cord before installing any modules to printer.
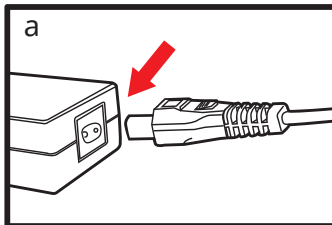
1.3.3 Card Loading

Automatic

> (i) For optimum printing quality, please ensure all cards are CR-80 standard with ISO 7810 certified.
> Please do not touch the printable surface and do not use any dusty, damaged, folded or embossed cards in your printer.

a. Open input card cover.

b. Place cards in card input hopper (if placing IC /Magnetic card, the IC/Magnetic side needs to face up in order to read and write them) and place the weight module on the top of the cards (help to insert cards smoothly into card printer)

a
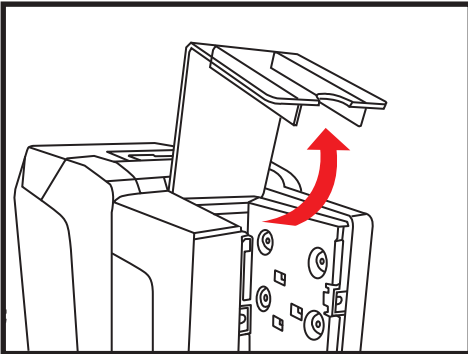
b
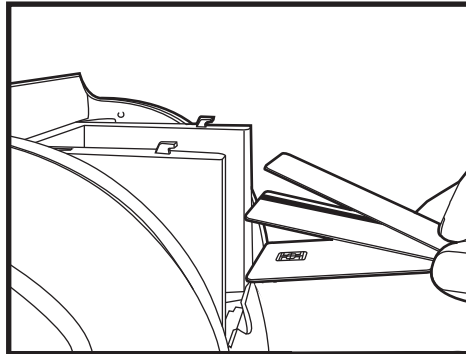
Collecting cards

When the printing is completed, the printed card will be ejected to the output hopper. The output hopper can fit 50 cards (0.8mm) maximum.

Adjusting

The printer has a manual adjustable card thickness mechanism which is located inside the printer unit. The thickness level accepts from 0.3mm to 1.0mm, and factory setting is at 0.8mm.

a. Open top cover.

b. Adjust the thickness level by moving the lever from left to right to the preferred thickness setting.

c. Close top cover.

a

b

c
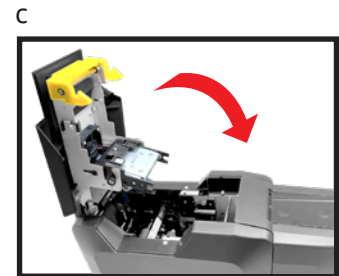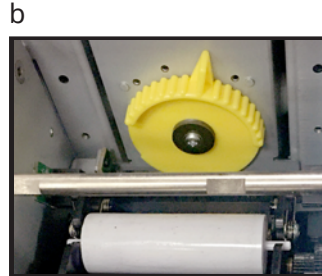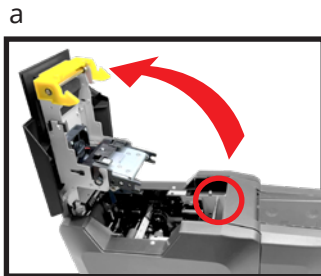
Chapter2. Start printing

2.1 Print driver installation

⚠️ For your own safety, please make sure the power cable is always unplugged before attempting any service maintenance work.

This is an important step and requires special attention to configure the printer and driver correctly before using it. Improper settings may result in substandard quality. It is essential to proceed installation process step by step, and changing any default settings only if when you are completely. We do offer an option to revert settings back to original factory settings at any time if any adjustment which you have made that does not correspond to the expected outcome results.

Please download driver from HiTi webpage, **www.hiti.com**; you will complete the installation by following the instructions.

⚠️ Please refer to printer connecting section for USB connecting procedure in this user guide for more details. Some version of Microsoft Windows may require the user to have administration rights to install the driver.

2.2 Print settings

Before using your HiTi card printer, it is very important to double check and/or change the default print driver settings. Those settings includes in the following list: Ribbon type/Card types/Card thickness/Others

> ℹ Please pay attention to the settings in printer driver and contact your local HiTi distributor or dealer for any advice and assistance needed before attempting any changes.

Driver's settings can be accessed from the following instructions:

◆ From the Start button (located bottom-left on the Windows task bar), select "Printers and Faxes"
◆ Select your HiTi card printer and then follow by a click on right button of the mouse
◆ From the Printer menu, select "Printing Preference"
◆ A pop up configuration screen for HiTi card printer appears
◆ The main menu tabs include Device Option, Printing Area, Color, Tools, Heating Energy, Magnetic Encoding, Import/Export & About

Frequently used print settings are Device Option, Color and Tools.
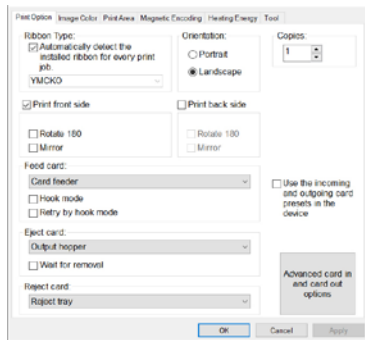
Print Option Tab

● Ribbon Type
● Card In and Card Out advance option
● Image of Front and Back
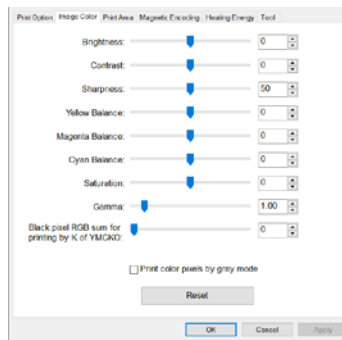
Image Color Tab

● Color preference setting
● Color adjustment
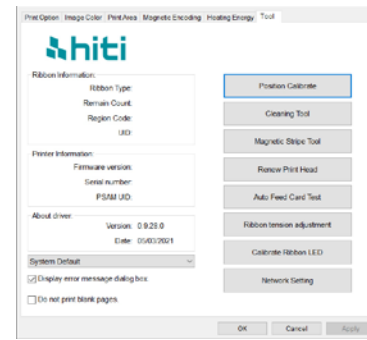
Tools Tab

● Positon Calibrate
● Cleaning Tool
● Magnetic Stripe Tool
● Renew Print Head
● Auto Feed Card Test
● Ribbon Tension adjustment
● Calibrate Ribbon LED
● Network Setting

2.3 Driver setting

2.3.1 Printing preferences

Win 7 : In "devices and printers", right click on the printer named "HiTi CS-222e" and select "print preferences".
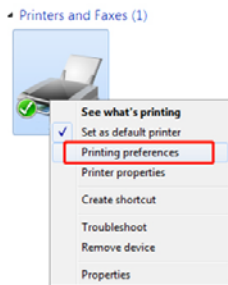
Win 10 : Setting > HiTi CS-222e > Manage > Set up printing preferences
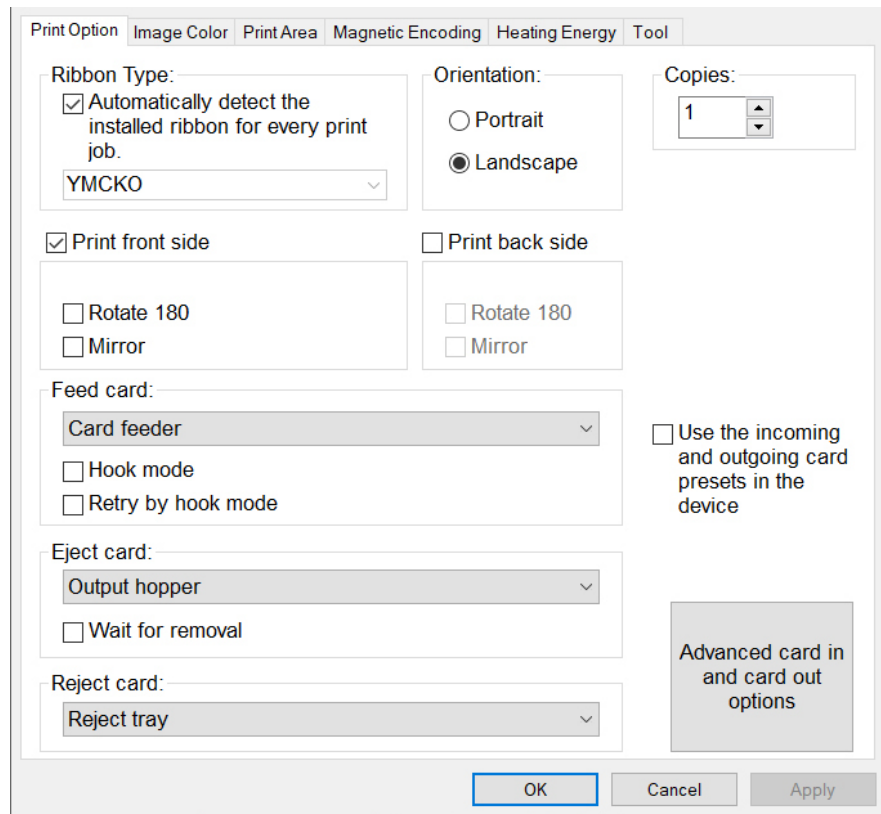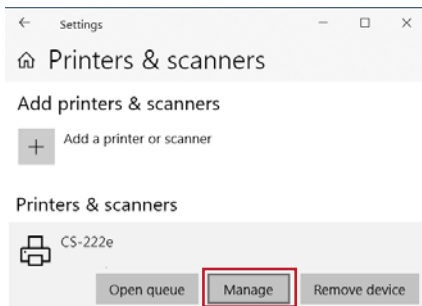
2.3.2 Ribbon type setting

(1) "Automatically detect the installed ribbon for every print job" is defaulted.

(2) When "Automatically detect the installed ribbon for every print job" was cancelled, the ribbon type needs to be set manually between below choices.

ℹ Detect the installed ribbon is default option and suggest to keep it.

2.3.3 Printing orientation setting

(1) Portrait or landscape. Default selected landscape orientation.

(2) Single or double side printing setting. Default only print front side, if need double-side printing, please also select print back side.

2.3.4 Printing page rotate setting

Default not selected, if selected "rotate 180", the printing page will rotary 180 degree.

2.3.5 Feeding card mode setting

⑴ Card feeder: Card feeding from input hopper automatically. It's default chosen.

⑵ Manual feeding card piece by piece from back end manual feed slot is optional.

Back end manual feed slot   Input hopper
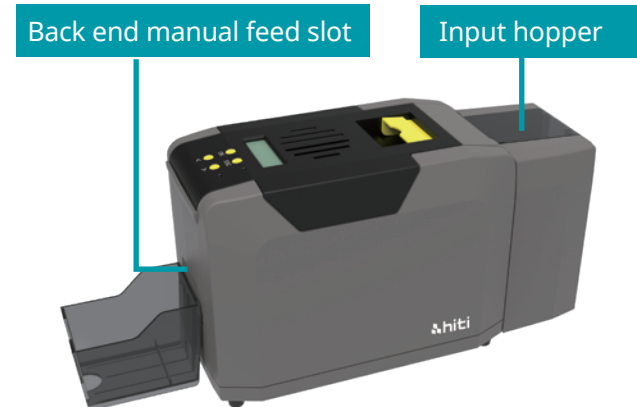
2.3.5 Feeding card mode setting

⑶ Hook feeding mode setting

You can find below page in bottom left of "Printing Preferences" - "Print Option".

A. When the "hook mode" and "retry by hook mode" are not chosen, the card feeding by roller only.

B. When select "hook mode", the feeding card roller and hook device will work in the same time.

C. When select "retry by hook mode" means if card feeding by roller was failed, will retry by hook feeding mode.

Roller feeding device
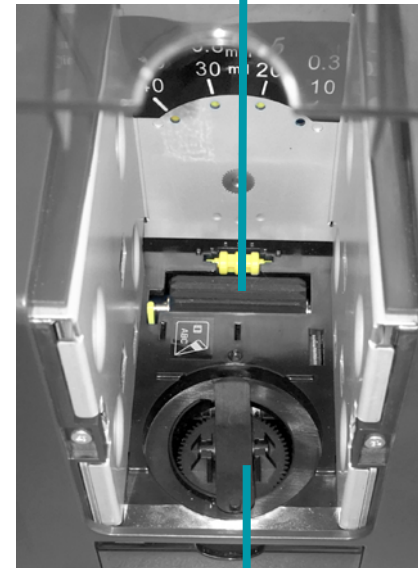
Input hopper interior view

2.3.6 Eject card setting

(1) Defaulted card moving out from "output hopper" after finished printing.

(2) Wait for removal, default not selected, if selected, card will wait for removal in the ejection card slot after finished printing.

2.3.7 Reject card setting

You can find below page in "Printing Preferences" - "Print Option" menu.
Defaulted: Defective card will moving out from "reject card box". Defective card moving out from "output hopper" or "reject tray" are optional.

ℹ Generally reject card box will be used when reading and writing chip cards.

2.3.8 Advanced card in and card out options setting

Default setting as below: It can adjust according to the actual application requirements.
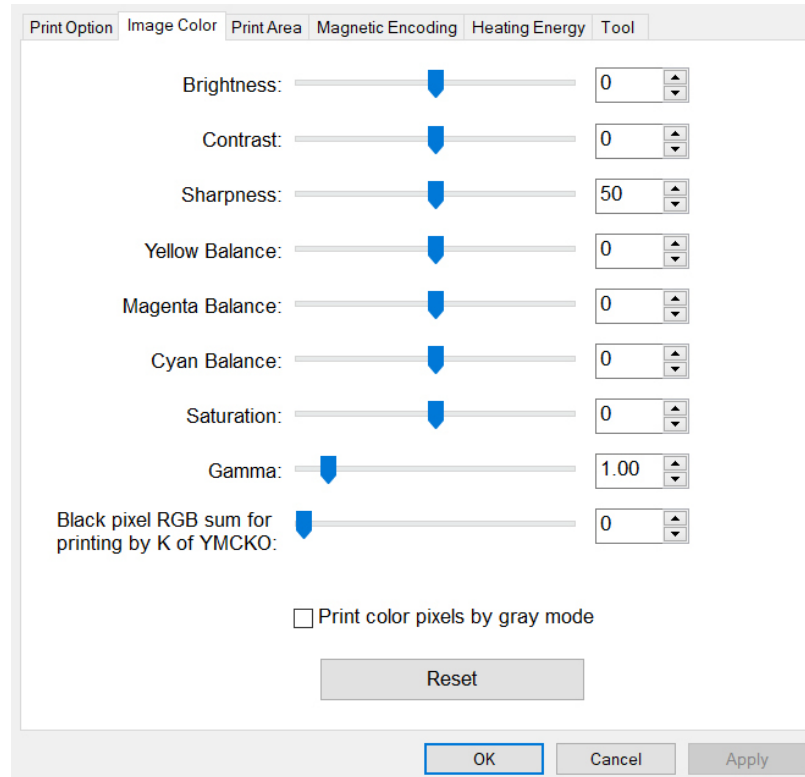
2.3.9 Image color setting

The driver default is optimal, normally it does not need to change, if has to, you can custom.

Reset: means restore factory default image color setting.

Apply: means after setting new parameter value, click "apply" to take effect.

2.3.10 Print area setting

(1) Default print area is full page printing.
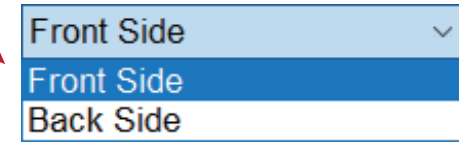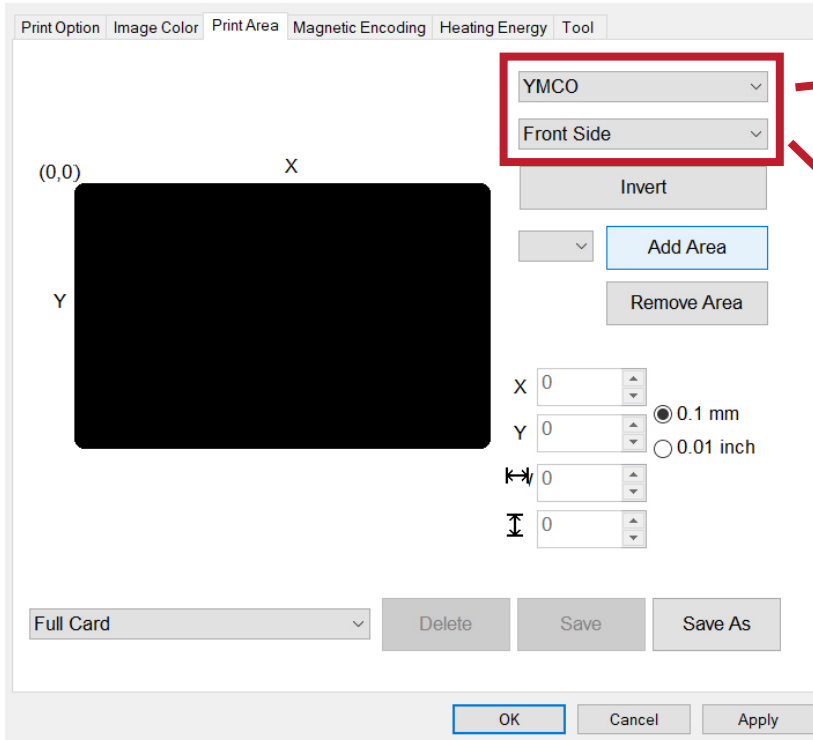
- Default YMCO and K are edge to edge printing.

- Default front side and back side are edge to edge printing.

ℹ The black area in above picture is the printing area.

2.3.10 Print area setting

（2）Customize printing area
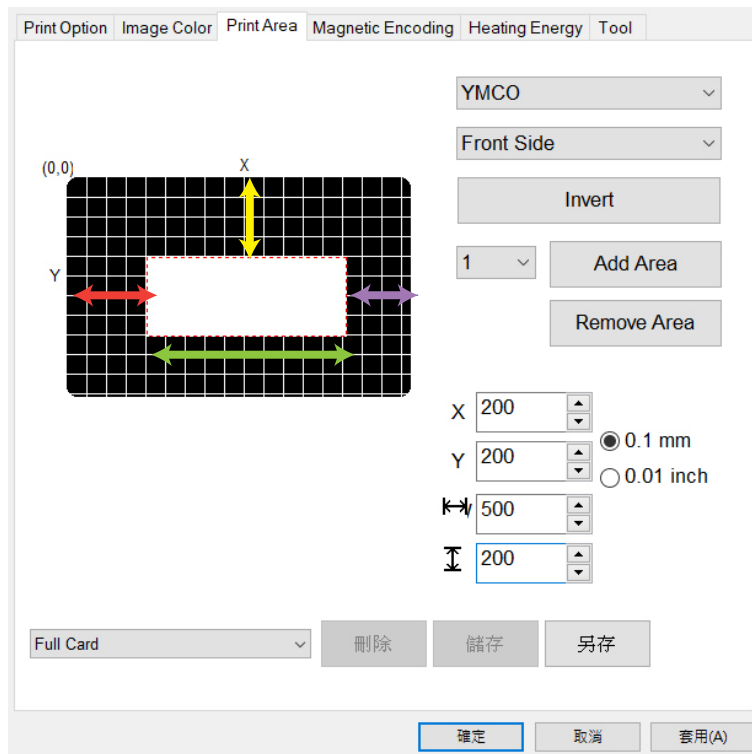
Click "add area", input or adjust X,Y value and length and width value.

- Red double arrow: represents the distance from the X-axis to the white area.

- Yellow double arrow: represents the distance from the Y-axis to the white area.

- Green double arrow: represents the white area (no printing area) length.

- Purple double arrow: represents the white area (no printing area) width.

ℹ The black area in above picture is the printing area, white area is no printing area.

2.3.11 Magnetic encoding setting

Function: for any software to edit the text between the filter characters, when printing, the printer encoding the same text.


```
Print Option  Image Color  Print Area  Magnetic Encoding  Heating Energy  Tool

Coercivity:
  ○ Low Co
  ◉ High Co

☑ Encoding by text data

                        Define Prefix and Suffix of the encoding data to filter
                        out Prefix and Suffix when encoding data from your
  Prefix filter:  ~     application.

  Suffix filter:  |     Example: ~1DATA|
                        The DATA will be encoded on track 1.

                        OK      Cancel      Apply
```

~1ABCD2233290000001|

Track 1 encoding data：ABCD2233290000001

~200201901553118|

Track 2 encoding data:00201901553118

~3201144662224855|

Track 3 encoding data: 201144662224855

"~1" means track 1 , "~2" means track 2,
"~3" means track 3. "|" means stop code.

2.3.12 Heating energy setting

When the printing color is relatively light, it's necessary to increase the heating energy value. When the printing color is dark or ribbon is easy to break, the heating energy value need to decrease.
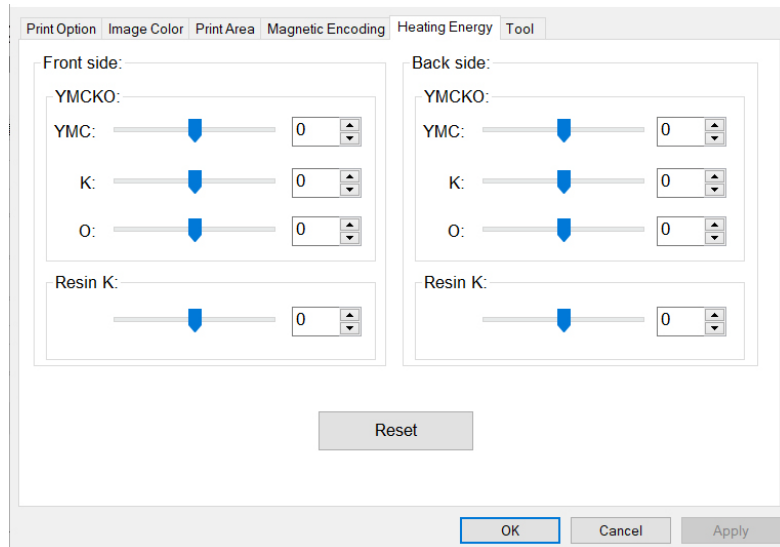
- YMCKO is for YMCKO ribbon
- Resin K is for monochrome ribbon
- Reset is to restore factory setting

2.3.13 Tool setting

Card printer's related information can be find as below picture.

Driver will choose the same language as your computer operating system during installation. More language will be support in the future.
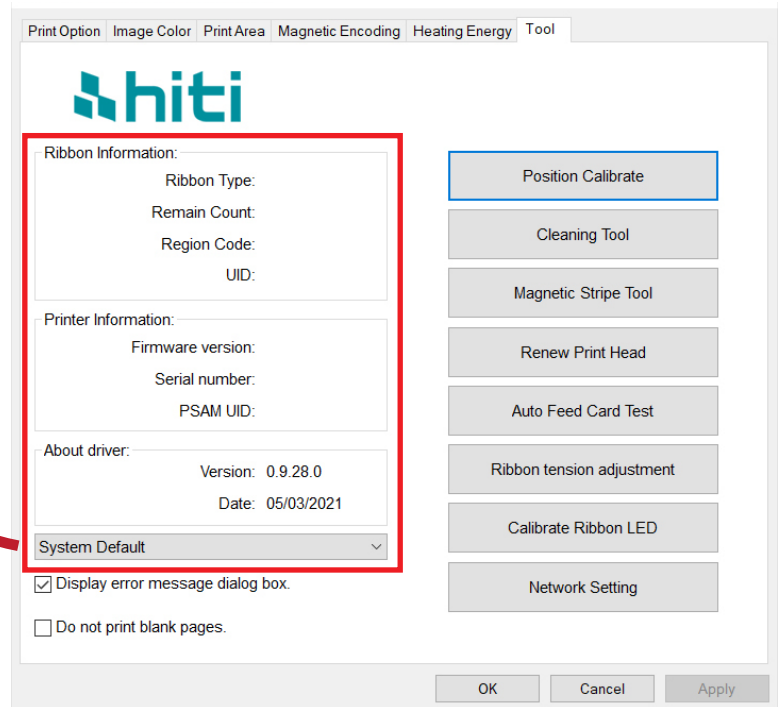
2.3.13 Position calibrate

To correct the printing position when the white edge appears on cards, and no correction is required by default.

- **L** is print start position, decrease **L** value when the start side has white edge.
- **T** is print finish position, decrease **T** value when the finish side has white edge.
- Increase the **L** and **T** value when the ribbon is easy to break.
- **S** is print side position, decrease S value when the side has white edge.

ⓘ It's suggested to add or subtract 1 unit parameter value gradually according to the print effect.

2.4 Print test

2.4.1 Driver test page

Step 1: open "Printing preferences", click "Tool", find and click "Position calibrate".

Step 2: Place some white card into input hopper, then click" Print Test Chart".

Print test card picture
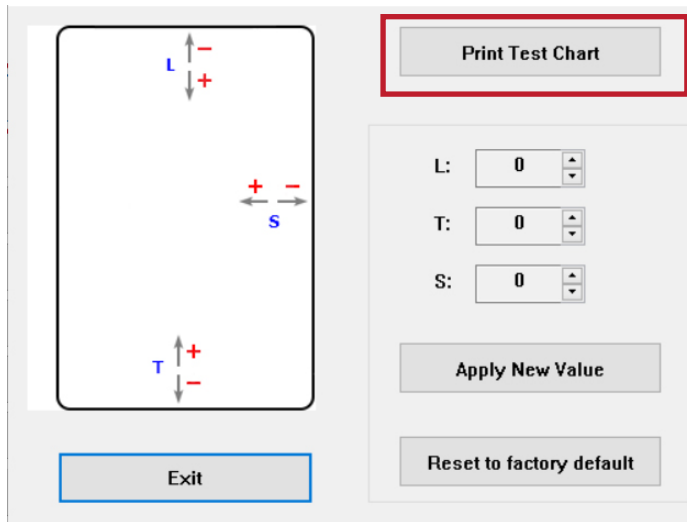
Chapter3. Printer maintenance

3.1 General warranty information notice announcement

HiTi CS card printer is professional designed to provide you a long term service duty with minimum regular maintenance required. Therefore please do comply with the instructions given in below to ensure your printer unit is covered by warranty condition.

* IT'S IMPORTANT TO STAY COVERED BY YOUR WARRANTY!! *

> ℹ️ All the manufacturer's warranty conditions are subject to strict adherence to the regular routine servicing and maintenance instructions, and also printer cleaning cycles.

> ⚠️ Any failure of the following required servicing and maintenance job duties mentioned in this chapter may void the print head warranty.

HiTi CS card printer accepts no any other liability what so ever where it has been any single failure to perform required servicing and maintenance job duties on the printer. It is common to know that the print head is an extremely sensitive as well as a wearing and tearing component. Therefore the life expectancy is heavily depending on the presence of solids, dust or liquids in the environment, either on the print head or cards. Every operating user must take all necessary precautions to use clean cards in the printer unit. The frequency and quality of the servicing and maintenance job duties will not only extend the print head's life expectancy, but also maintain the output printed quality. It is very important to all users must comply with the servicing and maintenance instructions which described within this chapter.

Use of non HiTi original consumables/ribbons may affect the quality and reliability of print job, low quality printed output and may also affect the printer's physical functions. The manufacturer's warranty does not cover any physical damages, quality problems and print head warranty by using non HiTi original consumables/ribbons.

3.2 Routine / Regular printer cleaning

> ⚠ Proactive reminder of cleaning is given by the driver, and it is required to go with the instruction, or else the warranty on TPH may be invalid.

Item Description	Cleaning required after
Color / Mono Ribbon	400 cards
Magnetic Encoding	400 cards

3.2.1 Using cleaning card

(1) Operating from driver:

> ℹ️ Each pack/box of HiTi original consumables should contain one single piece of cleaning card.

a. Remove any remaining cards from input card feeder.

b. Peel off plastic protection film from the cleaning card and then place it in the feeder.

c. Go to print settings in the driver, and access Printing Preference. Choose tab Tools, then apply Cleaning

a

b
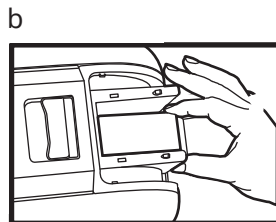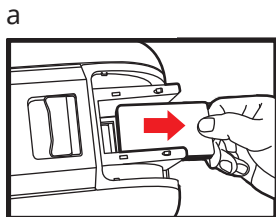
c
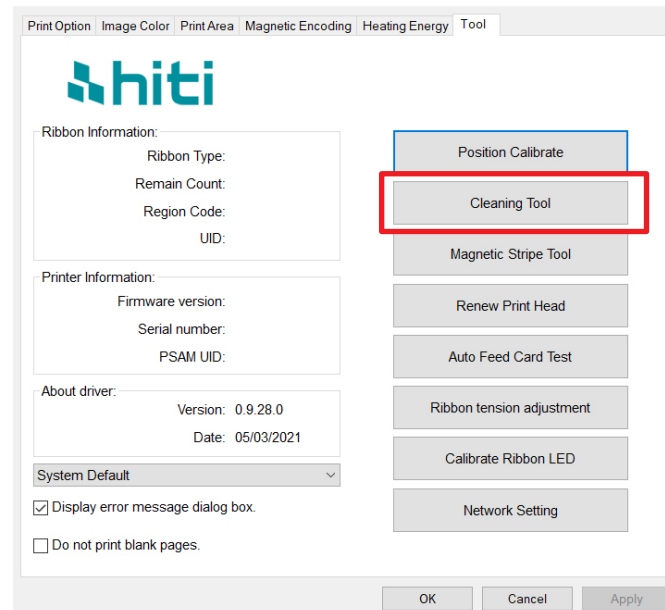
3.2.1 Using cleaning card

(2) LCM operating guide:

Step 1: Take out the cleaning card from the accessory box and remove the 3M hyaline layer on cleaning card's both sides and put it into input hopper.

Step 2: When Card printer shows "Ready", press "OK" one time, then press ">" two times.
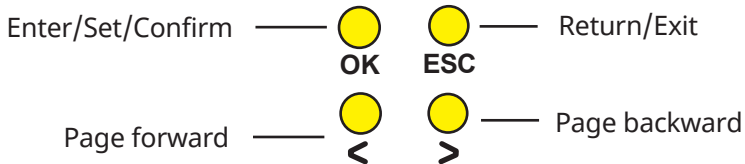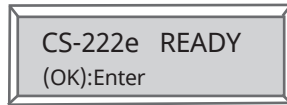
Step 3: LCM show "Clean function" press "OK" one time. Then LCM will show "Open the cover".

CLEAN FUNCTION
(OK):ENTER (←→):SELECT

OK   ESC

<   >

OPEN THE COVER
(OK):NEXT (ESC):CANCEL

OK   ESC

<   >

CS-222e   READY
(OK):Enter

Enter/Set/Confirm —— OK   ESC —— Return/Exit

Page forward —— <   > —— Page backward
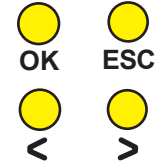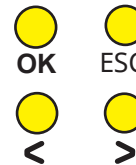
3.2.1 Using cleaning card

(2) LCM operating guide:

Step 4: Open the cover, take out ribbon cartridge, and then close the upper cover.

Step 5: Press "OK" one time. The card printer will start to cleaning.

TAKE OUT RIBBON		CHECK RIBBON STATUS...
(OK):NEXT (ESC):CANCEL		

OK   ESC   OK   ESC

<   >   <   >
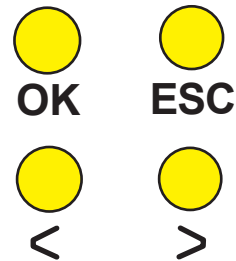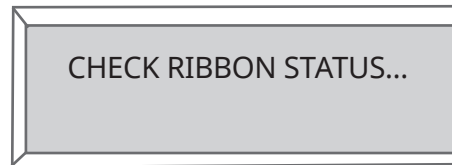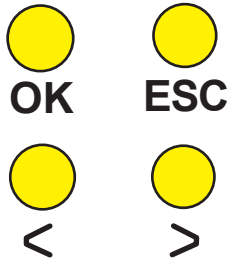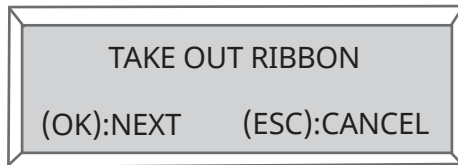
Step 6: The cleaning card will be exit to output hopper after finished cleaning. After it, please install the ribbon cartridge and close the upper cover.

3.2.2 Using cleaning roller

> ℹ️ Each pack/box of HiTi original print kit should contain a set of assembled cleaning roller.

   a. Take out the cleaning roll from the accessory box

   b. Tear off the 3M film and place the cleaning roll to the printer for cleaning.

> ℹ️ The purpose of using cleaning roll is to clean the dusts in the printer in order to optimal the printing quality. Please cleaning the printer every time after using ribbon roll.
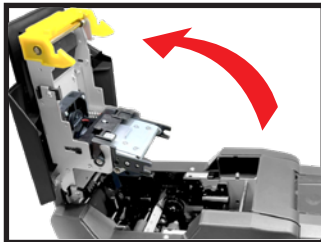
Open cover gently
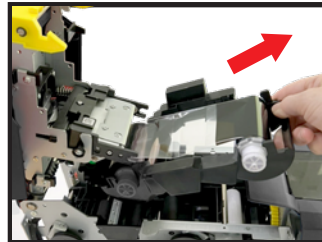
Take out the ribbon holder

Tear off the 3M film
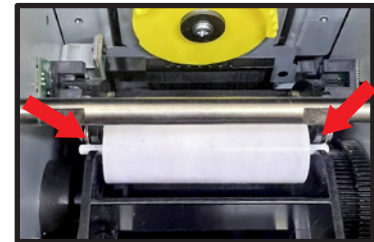
Hold the cleaning roll and place it to the correct position

3.2.3 Cleaning TPH (Thermal Print Head)

⚠ Please unplug the power cable from printer before start doing TPH cleaning process.
Try not to make any direct physical contact to TPH with any metal/sharp objects or your fingers.
The TPH and its components must be kept away from any discharge of static electricity.

ⓘ In order to maintain original print out quality, it is highly recommended to perform this process every time when a ribbon is changed.

a. Press the top opening button to open cover gently, and the TPH is attached to the ribbon door.

b. Please use the sponge stick to clean the TPH.

b

a
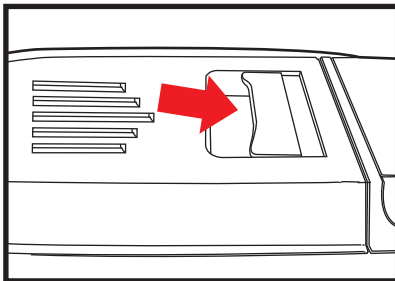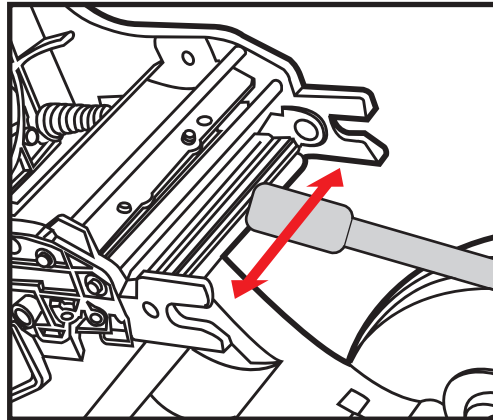
Chapter 4. Help Diagnosis

4.1 Warnings / Error messages and diagnosis

HiTi CS card printer is designed to get user involvement down to a minimum level. It is advised to gain some familiarity with basic warning messages knowledge during the operation.

4.1.1 LCM control panel

Basic descriptions

The printer is equipped with a LCD display with four buttons to give the access to printer menu and two LED lights to show conditional status. All printing status and warning/error messages will be displayed in this LCD screen.

LDC Display

Return to home page

Enter / Set / Confirm — OK   ESC — Green Light / Normal status

Page switch — < > — Page switch

Red Light / Error status
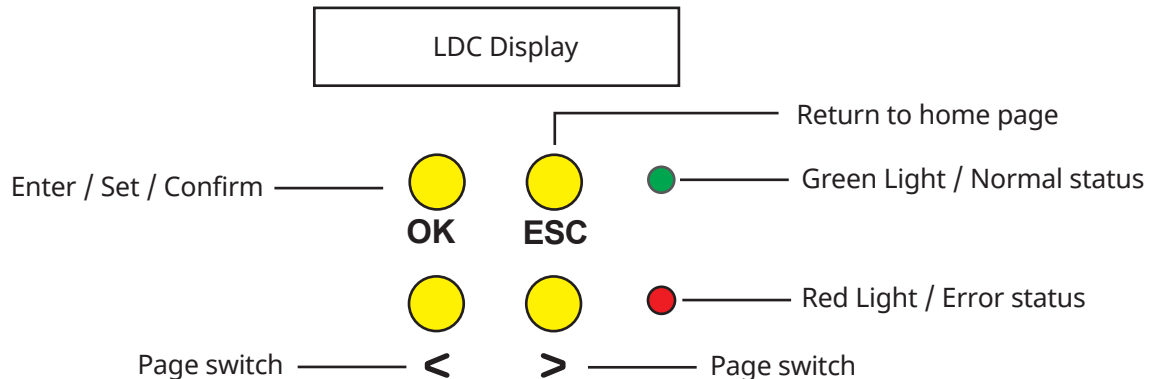
4.1.2 Control panel warning messages

Fault code	Fault name	Reason	Solution
CODE:43	Ribbon missing	Ribbon uninstalled	Install ribbon according to operating manual
CODE:46	Ribbon out	Replace a new ribbon	Replace a new ribbon according to operating manual
CODE:5F	Card out	Place some cards	Place some cards according to operating manual
CODE:21	Cover open	Upper cover has not closed	Close the upper cover
CODE:22	Reject box open	Reject box is open	Close reject box
CODE:23	Reject box full	Reject box is full	Take out defective cards
CODE:51	Card feed error	Thickness of card feeding entrance setting is wrong	Adjust the feed card thickness according to the operation manual
CODE:11	Card jam	Unusual card jam	Clean the card moving roller regularly according the to operation manual
CODE:44	Ribbon unsupport	Ribbon chip unsupport	Check the ribbon details by the driver or LCM, and contact the local distributor

4.2 Identify installed driver software version

You can easily indentify your driver version by accessing from your printer properties menu.
It is essential to keep your printer driver to be the latest version which always published from official HiTi web site.

Checking your driver version can be accessed from the following instructions:
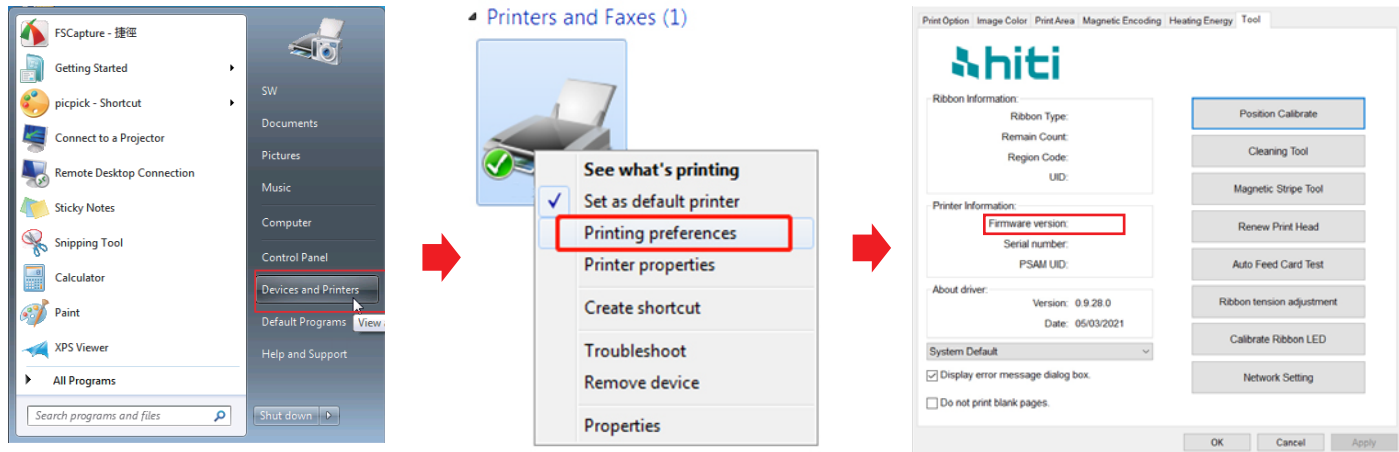
4.3 Troubleshooting

4.3.1 Printing problems

Nothing in action	◆ Check the printer driver to see if it is truly, well installed. ◆ Check the printer power supply and USB cable ◆ Check the ribbon and card ◆ Print a demo chart
Printed a blank card	◆ Check the ribbon ◆ Reset the printer, Option > Tool > Printing position adjustment > Reset to Factory Default setting or adjust LTS ◆ Use cleaning card to clean the printer ◆ Check the card to see if it carters to CR-80 specification
Partial or incorrect printing	◆ Check the printer settings ◆ Check the interface cable and ribbon ◆ Make sue the printer's cleaning roller is clean ◆ Check the printing card is clean ◆ Check the print head
Printed some small blemishes	◆ The card surface may be dirty or work on cleaning via dust arrestor ◆ Use cleaning card to clean the printer ◆ Print head clogged ◆ Check the roller of dust arrester to see if there's need to change a new one
Printed horizontal white lines	◆ Check the ribbon is fitted correctly ◆ Check the print head is dirty or damaged
Printed vertical white lines	◆ TPH may be impaired. Contact the distributor or dealer nearest to you for help.
Printed blurred images	◆ Check the ribbon to see if is fitted correctly ◆ Check the print head to see if there's need to do the cleaning ◆ Check the cleaning roller of dust arrester to see if there's need to change a new one. ◆ Check the card is compatible or not

4.3.2 Releasing from card jams

Please remove the jammed card by the following instruction displayed on LCM control panel of the printer before continuing the printing job.

◆ Open the printer cover door

◆ Remove the ribbon

◆ Follow the instruction on the LCM control panel with three options: Auto removal, Semi-auto removal and Manual removal

4.4 Technical support

If you have come across any difficulties in configuring and/or operating your HiTi card printer, please read this manual carefully.

If you are unable to manage solving your problems, you can obtain further information or help from your local authorized distributor or reseller.

For any unresolved technical problems, if you don't know your local distributor or reseller. You can visit our website www.hiti.com for contacting information and send us your questions.

We will be more than happy to assist you at anytime. It is important for you to provide those following information at anytime during your contact for servicing help:

◆ Your printer model and serial number
◆ The configuration and operating system which you are using
◆ A detail descriptions of the incidents/problems which has occurred
◆ A detail descriptions of the steps which you have already taken to solve the incidents/problems

If you need any additional information or technical help, you can obtain those information from our website www.hiti.com which offers you the ability to download the latest printer driver, firmware, user manual, and FAQ (Frequent Ask Questions) to maintaining your HiTi card printer.

Appendix A: Technical Specifications

HiTi CS-222e Card Printer	
General Technical Features	◆ Color printing module ◆ 300dpi print head ◆ USB connection ◆ Ethernet connection ◆ 128MB ◆ 50 cards output hopper (0.8mm/30mil) ◆ 4 buttons and 2 LED control panel
Printing Modes	◆ Color sublimation and monochrome thermal transfer ◆ Edge to edge printing ◆ A.I. smart ribbon saving for monochrome printing
Performance (various from card design & settings)	◆ Color: 1 side (YMCKO) = around 21 Secs (under lab testing environment) ◆ Monochrome: 1 side = 4.5 sec
System Request	◆ Computer with 128MB RAM or higher, 100MB free hard disk space or higher
Supported Platforms	◆ Windows 7/8/10 (32 & 64 bits) ◆ For Mac and Linux support, please contact Hiti Customer Service for detail
Supplied Software	◆ HiTi CardDésirée CS for designing and printing cards, ◆ compatible with Windows 7/8/10 and connects to MS Excel databases

Ribbon Types	◆ YMCKO 400 prints ◆ 1/2 panel YMCKO 560 prints ◆ Resin black 100 prints

Options
(Easy Add Modules)
	◆Magnetic stripe card encoding module: Support ISO7811 Hi-co/Low-co, 3-Track read & write
	◆Dual interface chip card reading and writing module:
	    1. Support CPU card (ISO 7816, T=1 & T=0)
	    2. 4 SAM slots (same as SIM card size complied with GSM11.11)
	    3. Support contactless CPU card (ISO14443 TYPE A/B),PC/SC
	◆UHF Chip card encoding module: Support EPC C1 GEN2/ ISO 18000 -6C Air interface protocol standard

Warranty	◆Vary from region to region, please consult with your local distributor or reseller for details
General Information	◆Card types: PVC card ◆Card format: ISO CR-80 / ISO 7810 (53.98mm x 85.60mm) ◆Card thickness: Thickness: support 0.3-1mm Factory default: 0.8mm ◆Input Hopper Card Capacity: 100 cards (0.03 inch / 0.76 mm / 30mil) ◆Output Hopper Card Capacity: 50 cards (0.03 inch / 0.76 mm / 30mil) ◆Defective card slot capacity：30 cards(0.03 inch / 0.76 mm / 30mil) ◆Printer dimensions(WxHxD): 15.1 ×6.9 ×8.2 inch / 383 × 174 × 208 mm ◆Weight：6.3 kg / 14 lbs (Ribbon and module excluded) ◆Interface ：USB 2.0 & Ethernet ◆Power：AC 100~240V, 50/60 Hz, DC 24-25.5V, 2.7 A ◆Remark: Flipper and Ethernet modules are embeded ◆Storage environment: 5°C to 30°C / 40% to 60%RH (without condensation) ◆Operating ventilation: open cooled air area

Appendix B   FCC Compliance Statement

1. Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2.IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements,no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

3. FCC INFORMATION:
The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The 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 provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation.If this equipment dose 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 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.

The user should not modify or change this equipment without written approval
Form HiTi Digital, Inc. Modification could void authority to use this equipment.