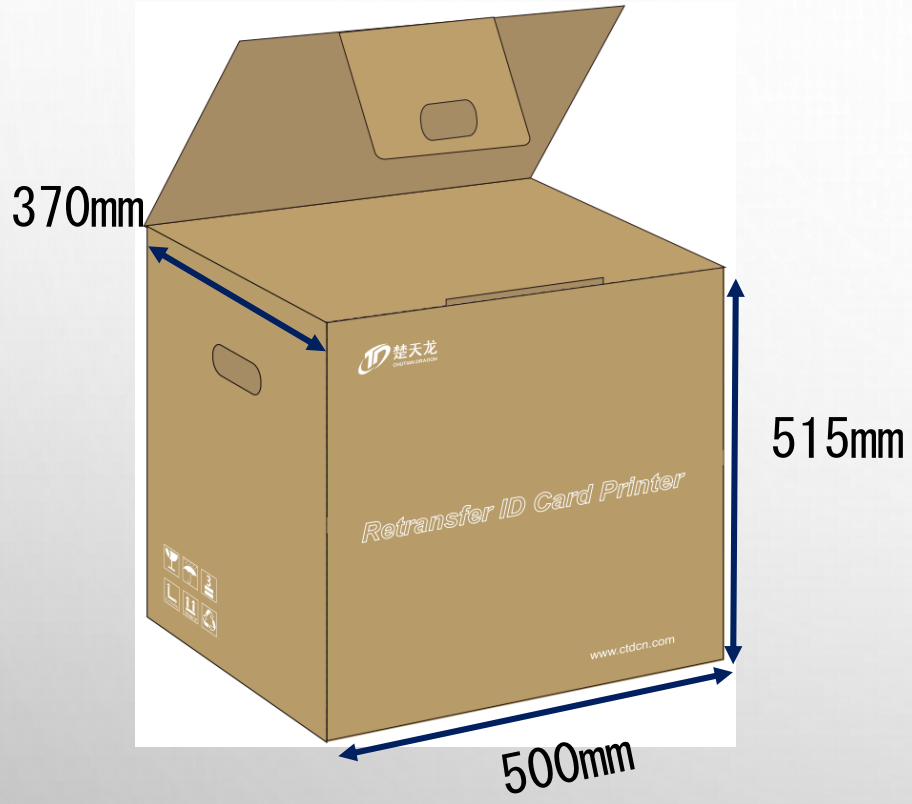
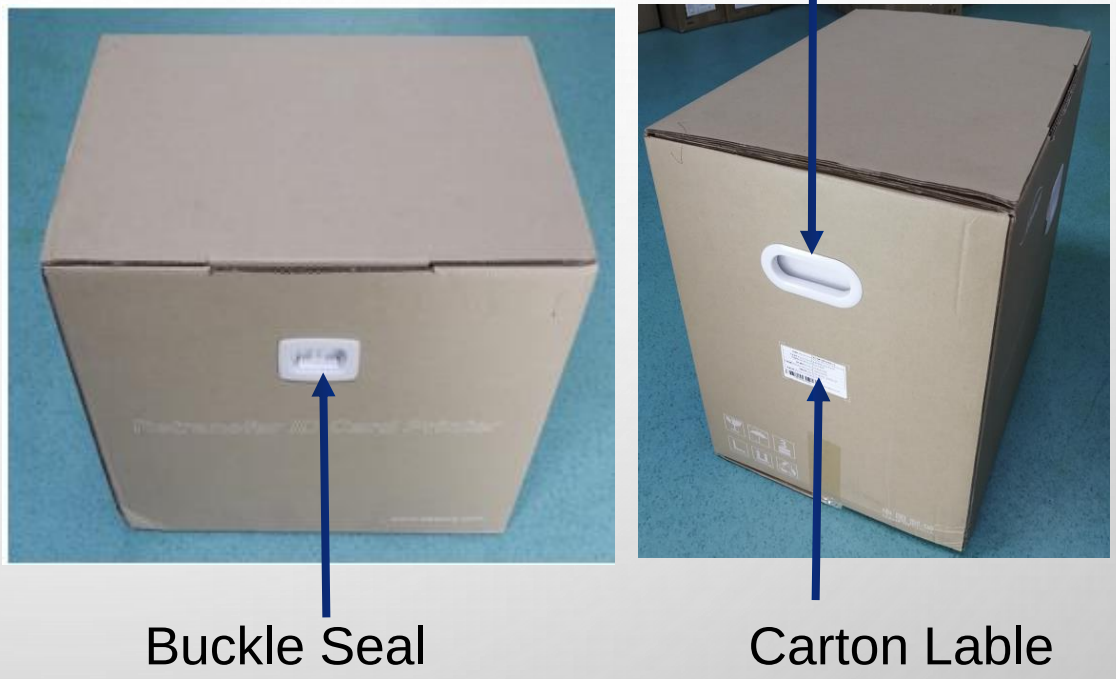
R Series Retransfer Card Printer

1. R600 Unpacking & Checking
2. Introduction for R600 Appearance
3. Installation Introduction for Main Operation Parts
4. Introduction for R600 Structure and Function
5. Solutions for R300 Card Printer Trouble

R600 开箱检查
R600 Unpacking & Checking

包装箱外观视图 Outside of Carton

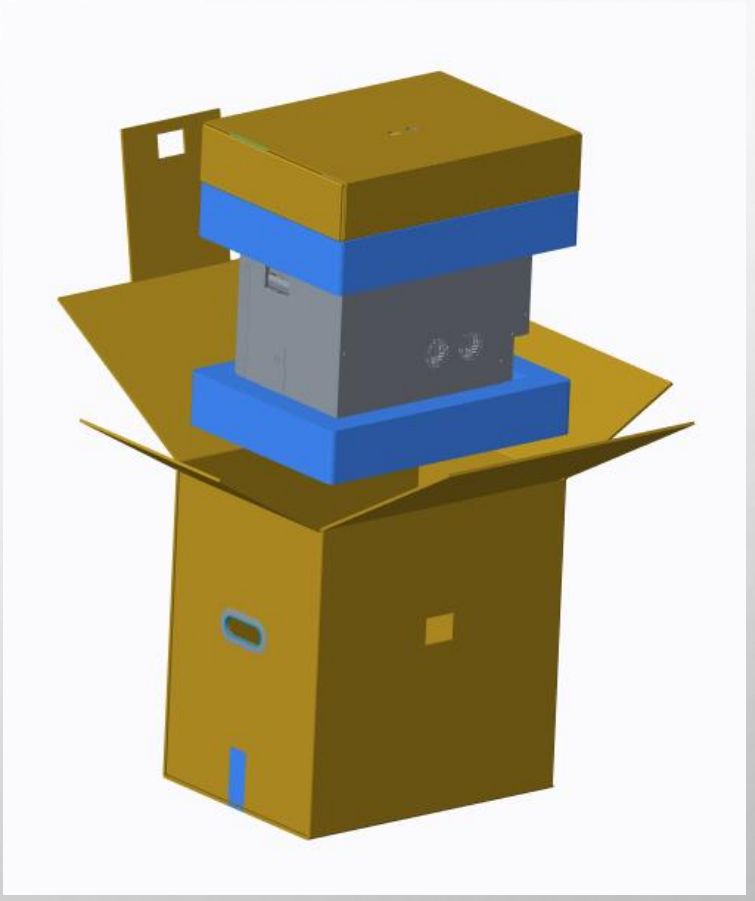




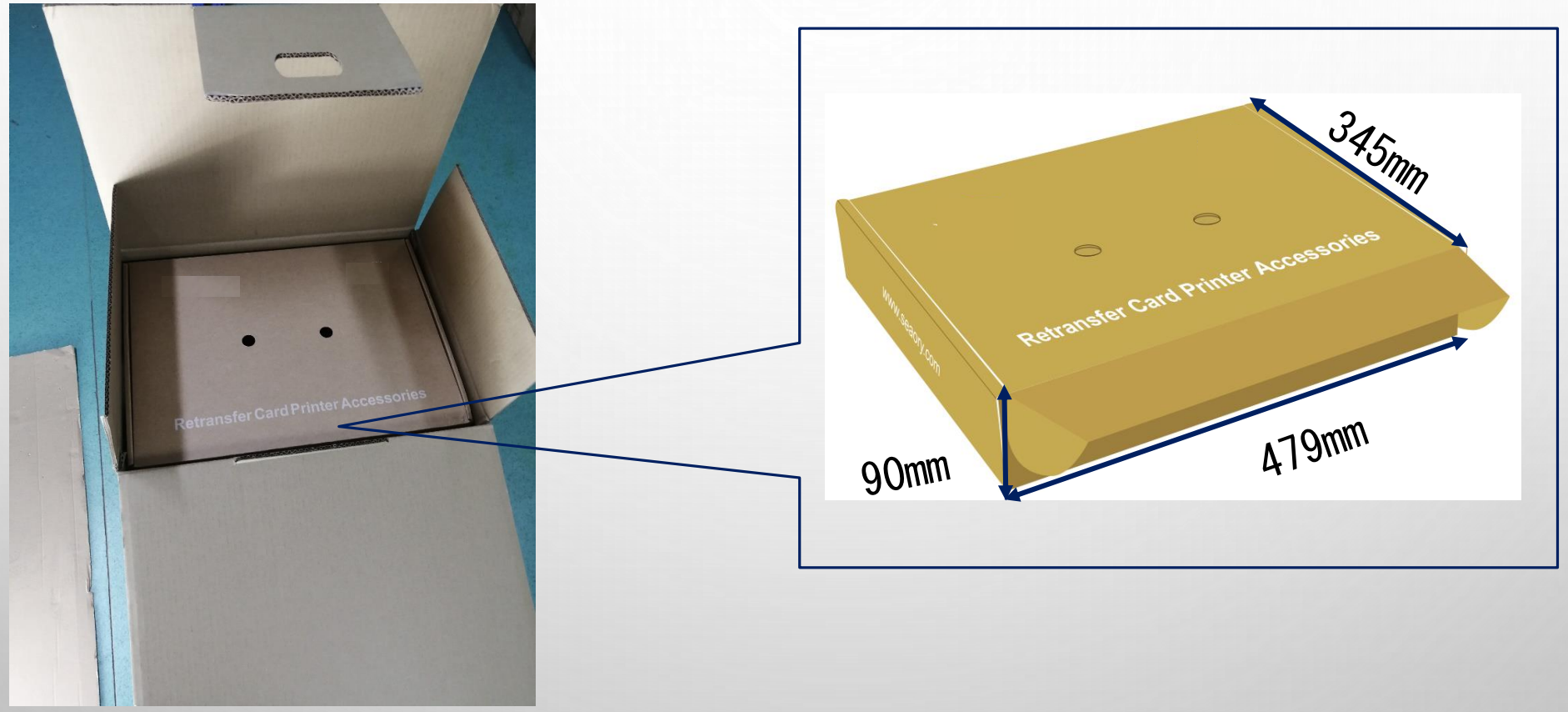
Size：500×370×515mm

GW: 24.5Kg

箱内视图 Inside of Carton



配件盒视图 Accessories Box



size: 479mm × 345mm × 90mm

配件盒内物品 Accessories

Card-Output Hopper
*1pc

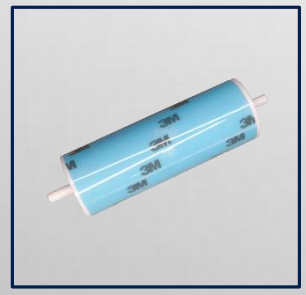
Card-Input Hopper
*1pc

Power Cable
*1pc

USB Cable
*1pc

Countweight Card
*1pc

Cleaning Module Holder
*1pc



Cleaning Roller
*1pc

Cleaning Cards
*5pcs

Cleaning Swab
*1pc

Warranty Card
*1pc

CD
*1pc

R600 外观介绍
Introduction for R600 Appearance

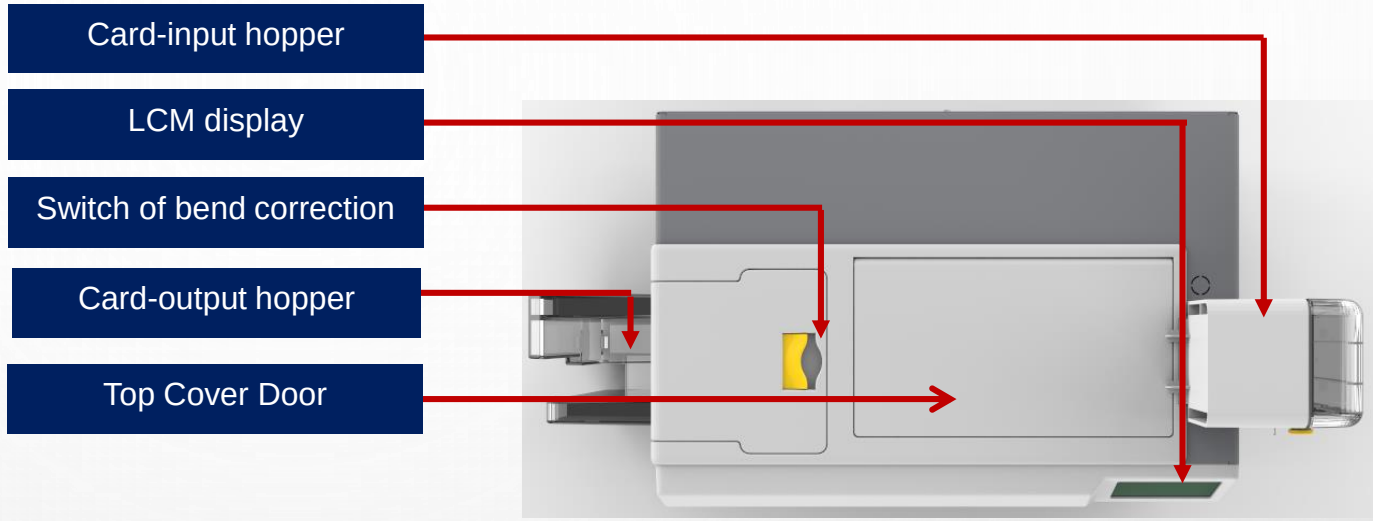
尺寸及重量 Body Size / Net Weight

R600 body size（L×W×H）：

568mm × 272mm × 398mm(with 2 cardboxes)，weight：20.3Kg

390mm × 272mm × 320mm（2 cardboxes excluded)

顶部视图 Top of the Printer



- 进卡盒：待打印的卡片放置区（可装200张0.76mm标准卡片）
- Card-input hopper: Card placement area to be printed(load 200 cards with 0.76mm standard size)

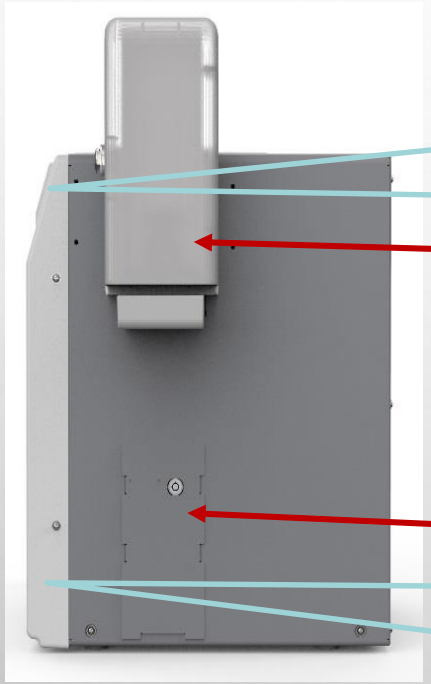
- 显示屏：显示打印机参数信息和状态信息及其相关操作
- LCM display: Display printer parameter information and status information and related operations

- 整平模块门开关：用于配合打开和检查整平模块。
- Bent card correction: Used to open and check the bent card correction module

- 出卡盒：暂存打印好的卡片（可装200张0.76mm标准卡片）
- Card-output hopper: Temporarily store the printed cards(load 200 cards with 0.76mm standard size)

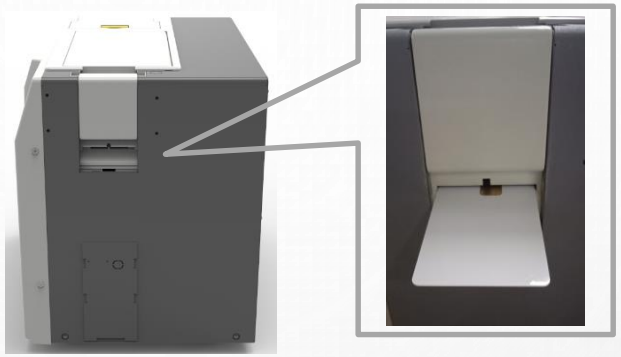
- 上盖门：打开上盖门可以观察其内部工作状态和安装清洁模块。
- Upper cover door: Open the upper cover door to observe its internal working status and install the cleaning module.

前端视图 Front end of the Printer

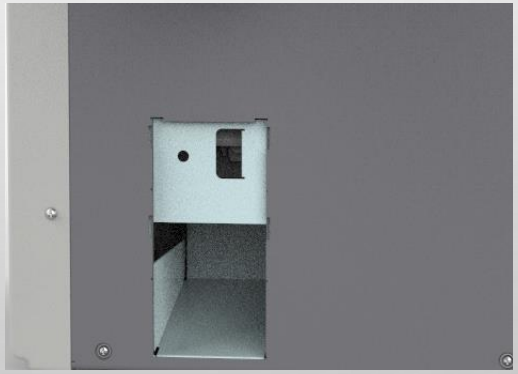


Card-input hopper

Defective card Box

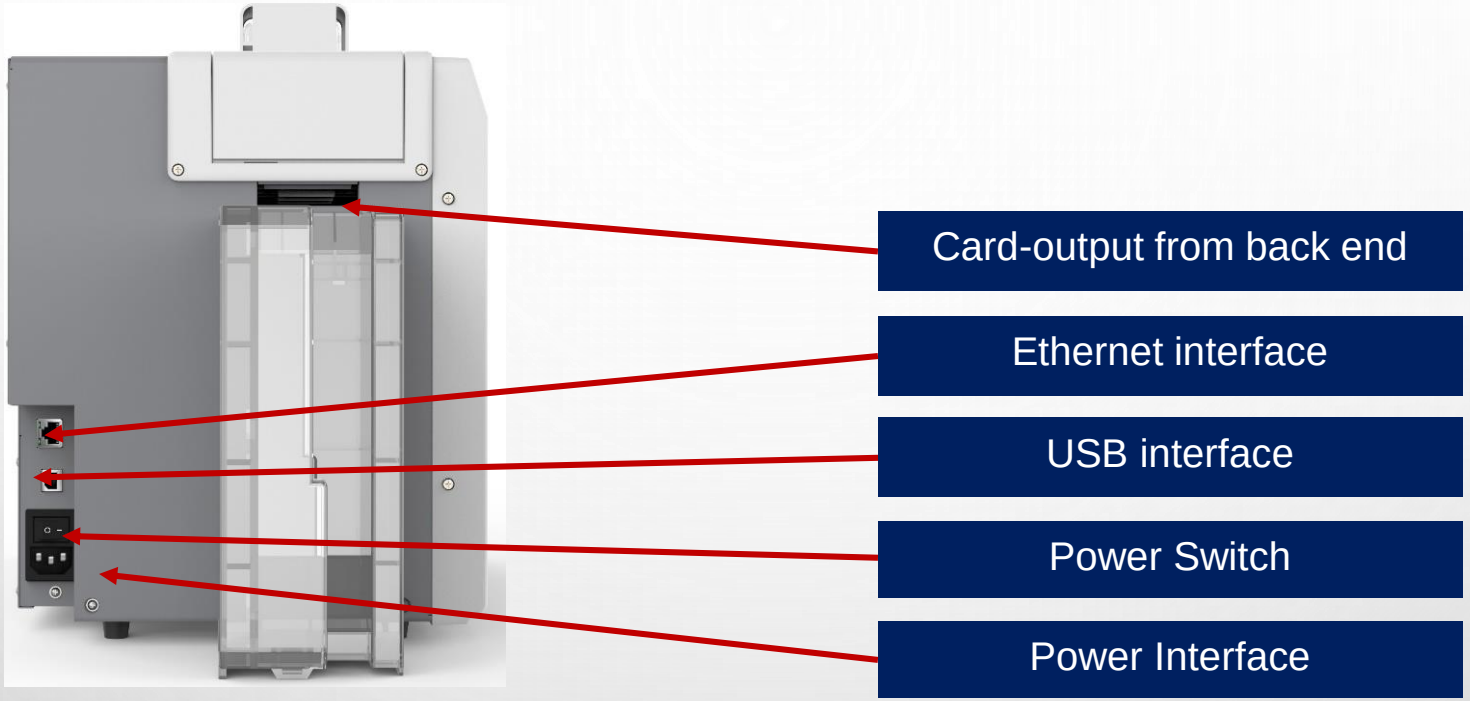


将出卡槽取出后，旋转进卡底座后可实现前端手动进卡和出卡功能。
After taking out the card-output hopper and rotating the card-input base, manual card feeding in the front end and card output functions can be realized.



可容纳25张标准厚度0.76mm卡片；有废卡槽满报警功能。
Load 25 cards with standard thickness 0.76mm, with sensor alarm function for full capacity of defective card slot.

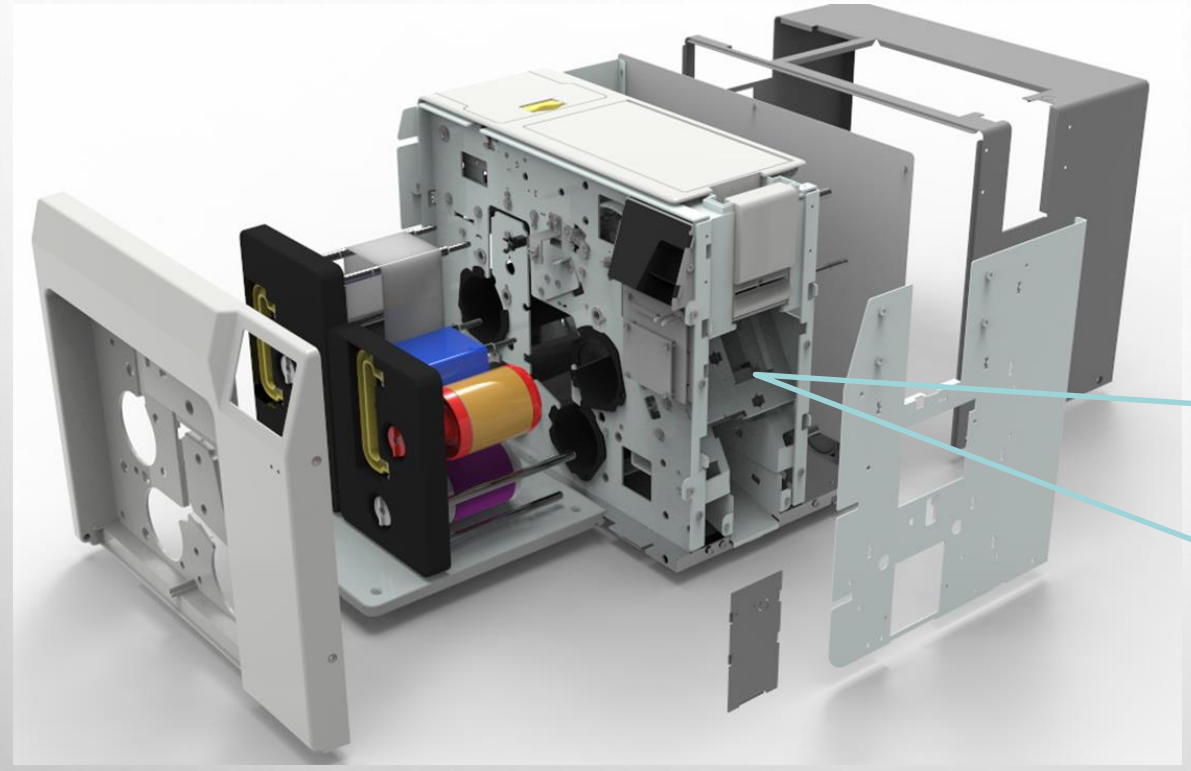
后端视图 Back end of the Printer



- 后端出卡口:打印好的卡片从此弹出，支持后端手动单张进卡和待取卡回收功能。
- Card-output ： The printed card is ejected from the back end, and support manual feeding card and recovery of pending cards

- 电源接口：接入交流电100-240VAC，50/60Hz，4A。
- Power interface: Access alternating current 100-240VAC，50/60Hz，4A

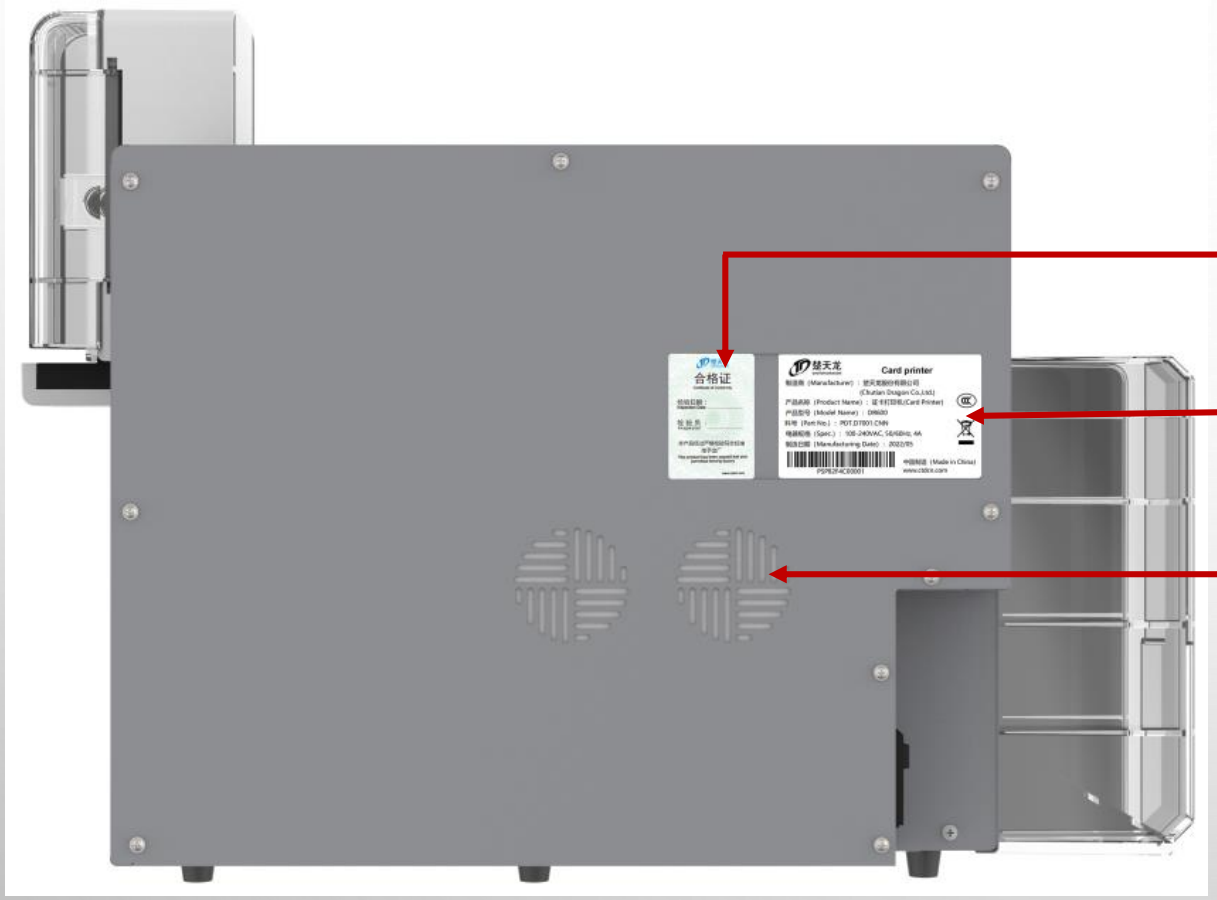
分解视图 Decomposition View



磁条模块需要拆下正面外壳、背面外壳与中间外壳才能进行安装。

Magnetic Stripe encoding module: Remove the front shell, back shell & middle shell to install

背面视图 Back Side View



合格证
Conformity Certificate

铭 牌
Label

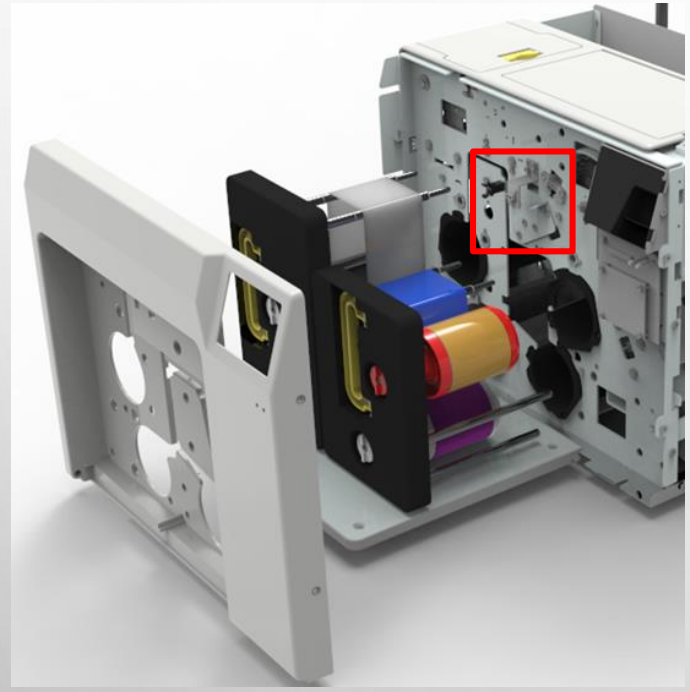
散热风扇
Cooling Fan

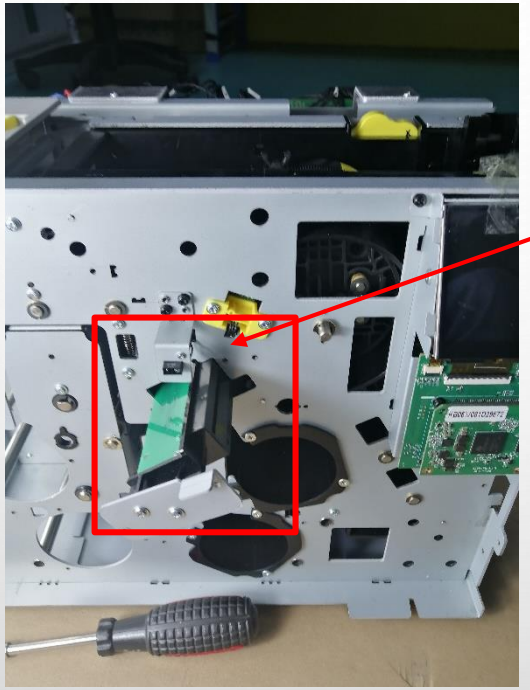
后侧主板视图 Mainboard of Back Side View

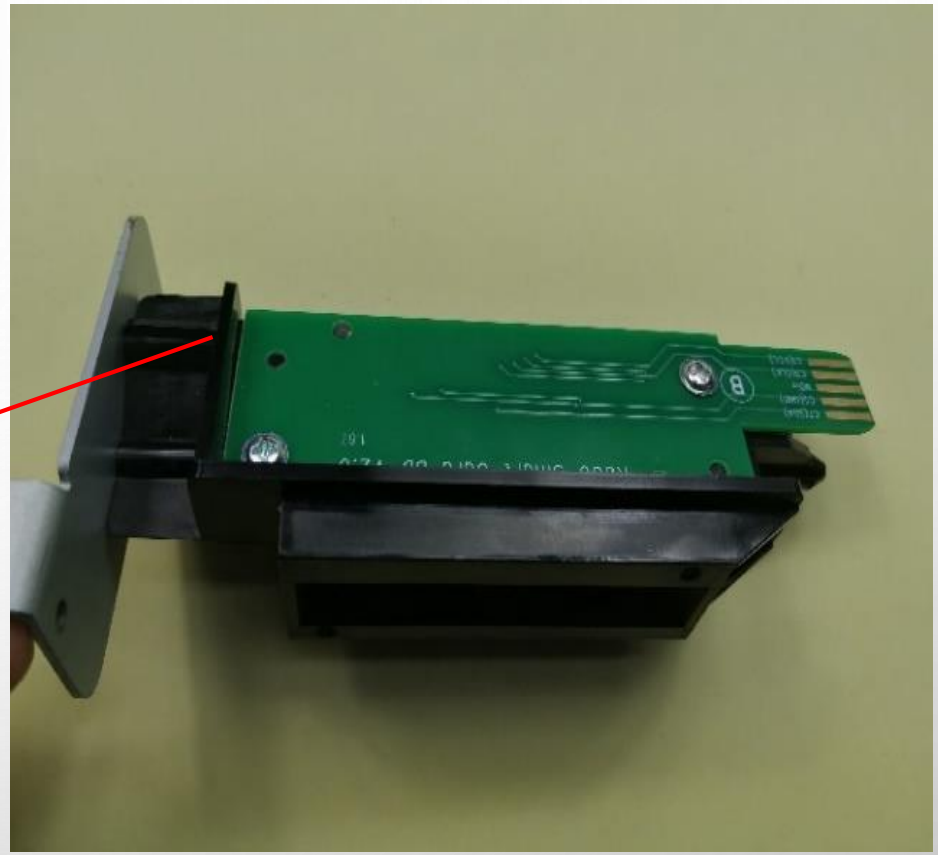
- 上图红框为原厂双界面芯片卡读写模块主板安装位置
- The red box in the figure above shows the mainboard installation position of the original dual-interface chip card encoding module.

- 选用第三方模块使用接触式功能时，要选配芯片卡支架模块
- when use the encoding module from third party, have to purchase module bracket from SEAORY and match with it to install encoders.

接触式IC卡座安装视图 Holder for Contact IC Card



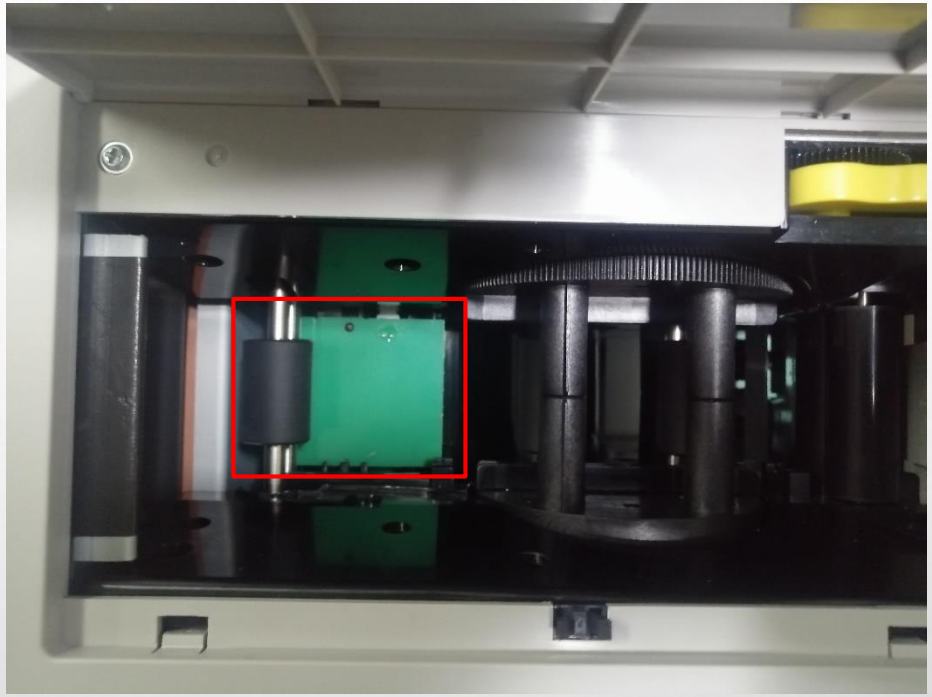




需要拆下正面外壳才能安装接触式卡座

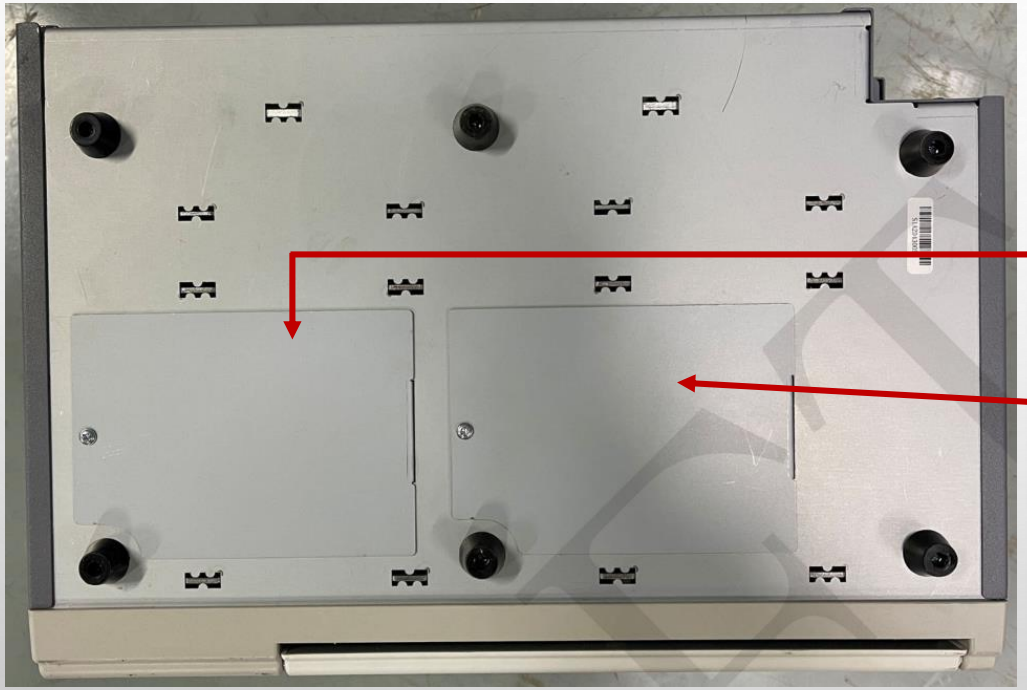
The front shell needs to be removed to install the contact IC card holder.

非接触式IC卡读写天线板视图
Antenna Board for Contactless IC Card Reader



非接触式天线板安装位置
The installation position for Contactless IC card antenna board

机器底部 Bottom of the Printer



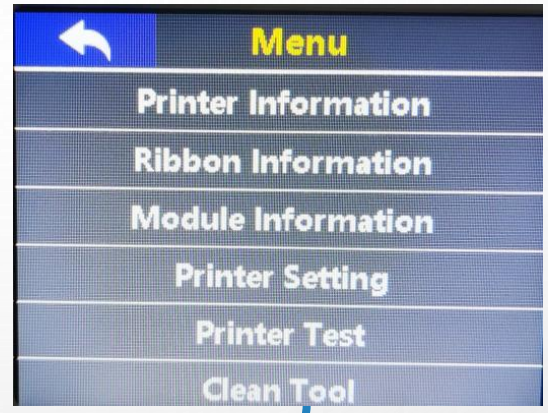
预留底盖1
Reserved Bottom Cover 1

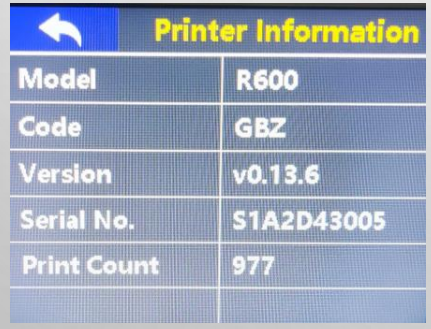
预留底盖2
Reserved Bottom Cover 2

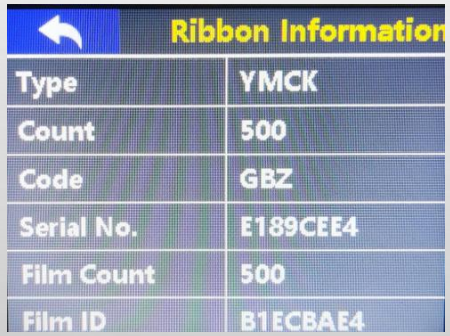
主要操作配件安装介绍
Installation Introduction for Main Operation Parts

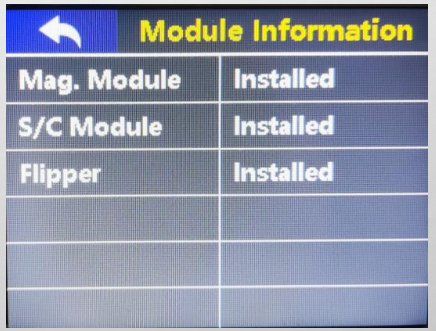
触控屏界面-1 Touch screen-1

信息界面 Printer information



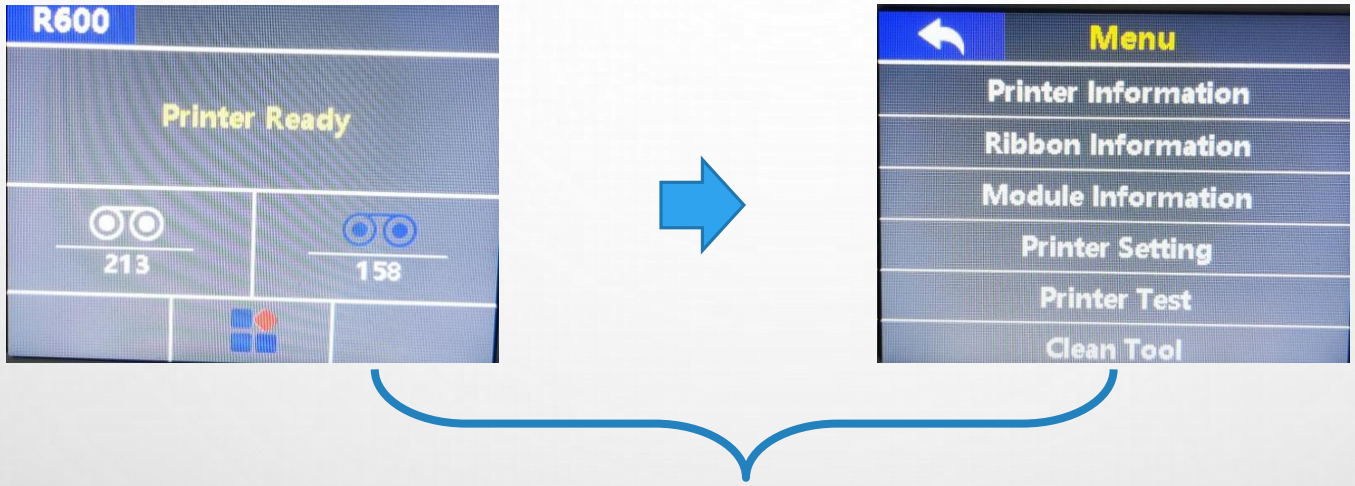


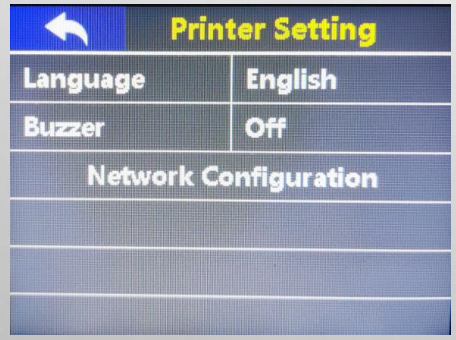


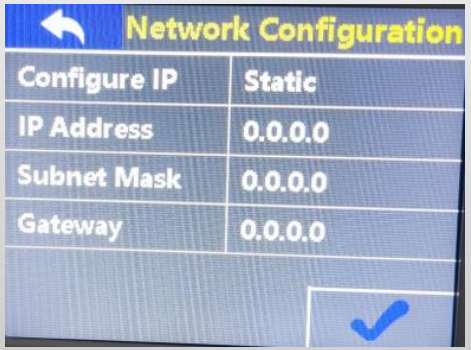


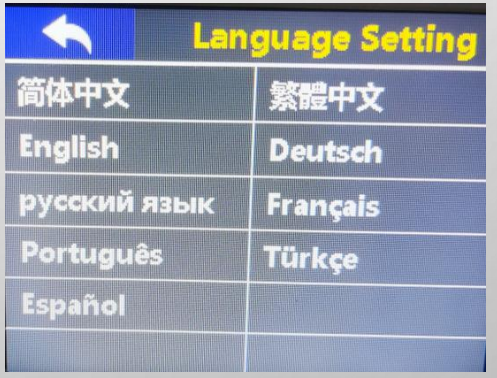
触控屏界面-2 Touch screen-2

设置界面 Setting



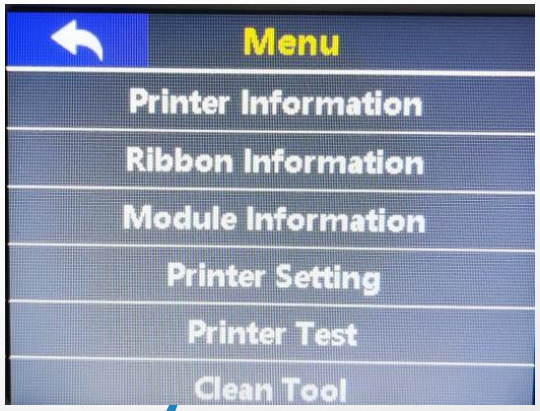


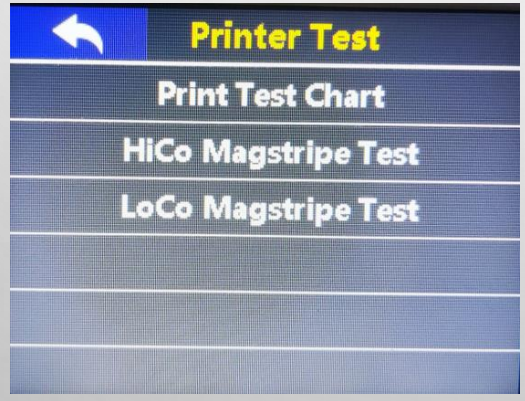


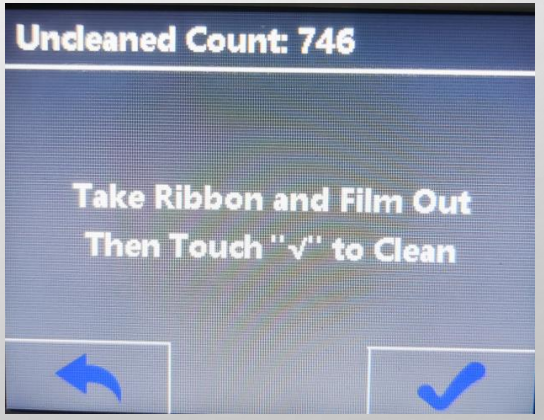


触控屏界面-3 Touch screen-3

测试、清洁界面 Test and cleaning







触控屏界面-4 Touch screen-4

故障界面 when error happen

出现故障后，请第一时间拍摄此照片反馈给我们。
When errors happen, pls take this photo and send to us

安装清洁轮-1 Install Cleaning Roller-1

清洁轮
cleaning roller

撕掉保护膜
Peel sticker

安装到清洁轮支架上
Install it on the bracket

安装清洁轮-2 Install Cleaning Roller-2

打开打印机上盖
Open top cover

把清洁轮支架安装到清洁轮槽内
Install bracket to cleaning roller location

安装色带与转印膜-1 Install Ribbon & Retransfer Film-1

取出色带及转印膜

Take out ribbon and retransfer film from package

安装色带与转印膜-2 Install Ribbon & Retransfer Film-2

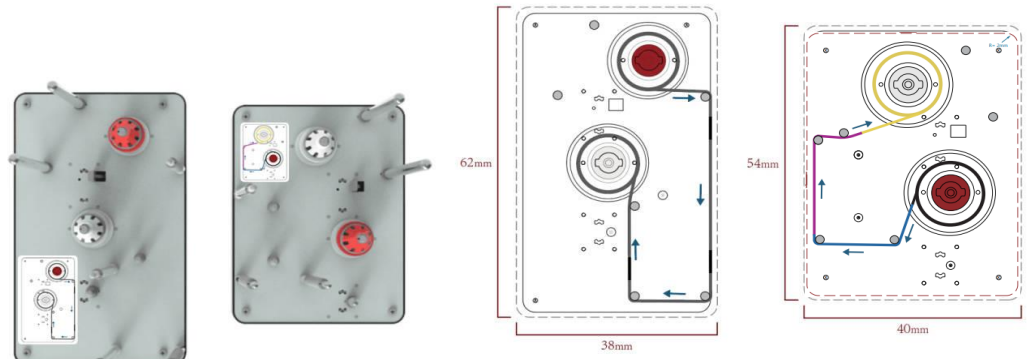
打开打印机色带门
Open the ribbon door

打开色带门后
After open door

取出打印头保护绵
Take out the protection materials

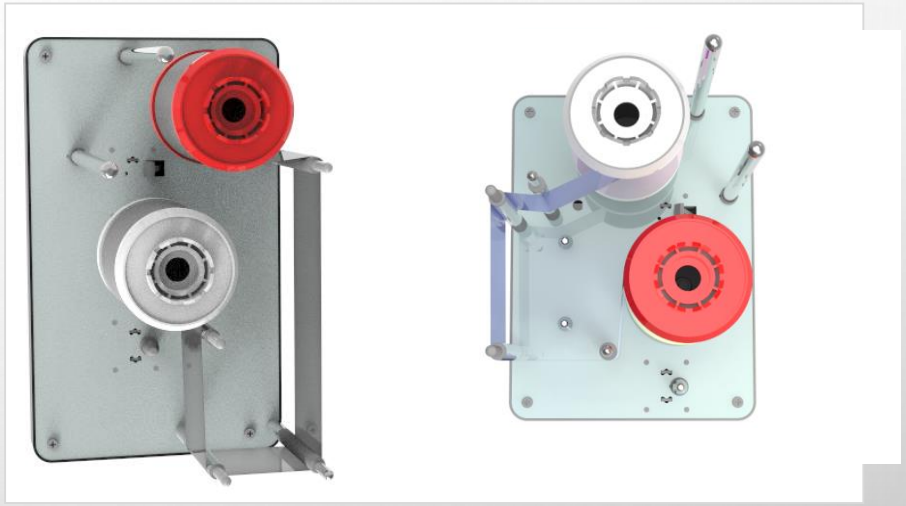
取出色带及转印膜架
Take out brackets

安装色带与转印膜-3 Install Ribbon & Retransfer Film-3



转印膜耗材架示意图成品尺寸：62mmx38mm

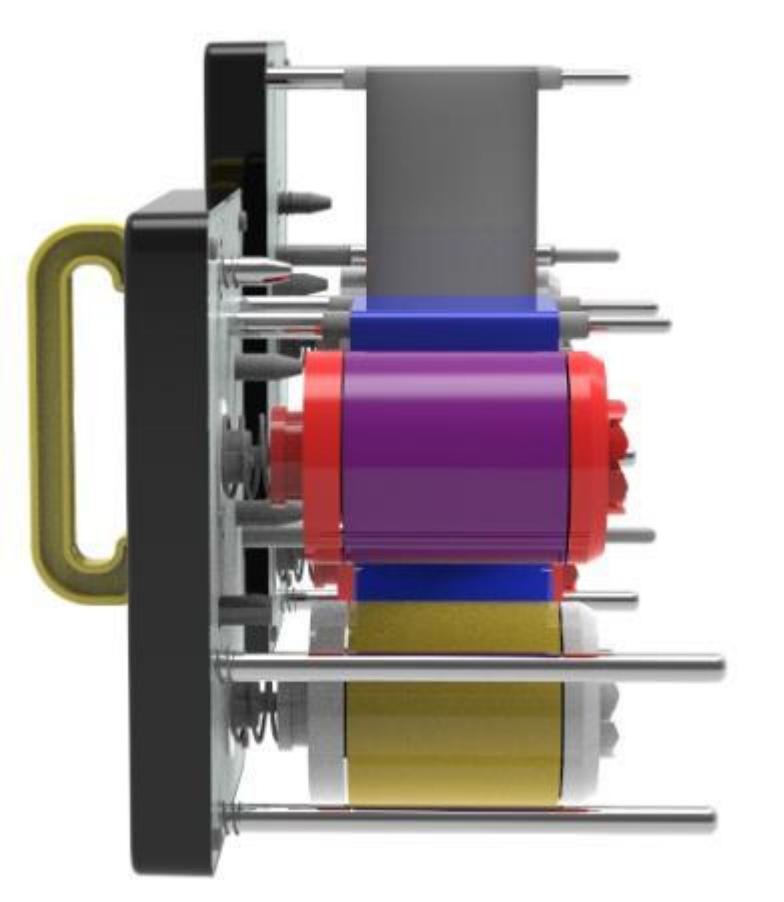
色带耗材架示意图成品尺寸：54mmx40mm



根据图示颜色、色带缠绕方式安装色带

Follow above ribbon winding way to install ribbon with correct direction

安装色带与转印膜-4 Install Ribbon & Retransfer Film-4



注意安装方向，色带轴的卡扣要朝外
Be ware of the installation direction, the buckle of ribbon shaft should be facing outside.

安装色带与转印膜-5 Install Ribbon & Retransfer Film-5

装回转印膜架
Install film bracket into printer

装色带架
Install ribbon bracket into printer

关上色带门
Close the ribbon door

安装进卡槽 Install Card-input Hopper

设置好卡盒卡片刻度
Set the card thickness scale

打开机器卡盒托盘
Open the card box tray

装入卡盒
Install card hopper

安装完毕
Installation finished

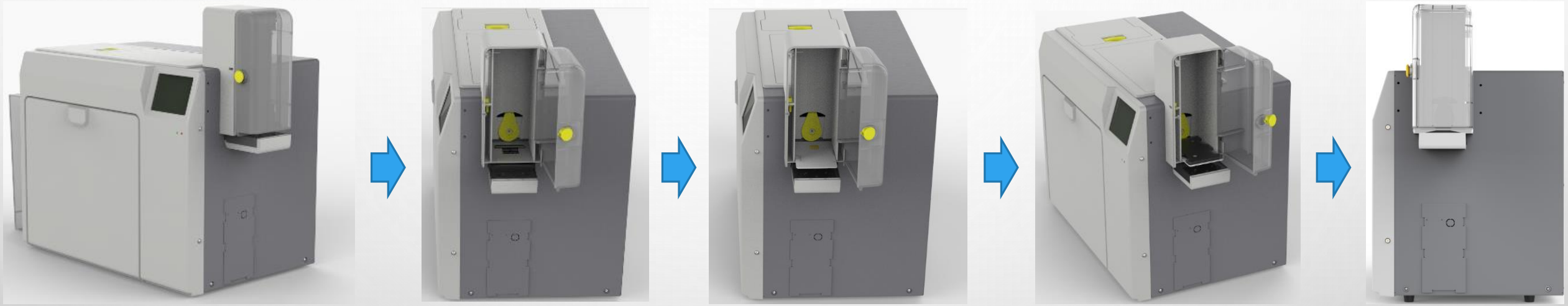
安装出卡槽 Install Card-output Hopper

出卡盒
Card-output hopper

装入到打印机后端卡扣
Put it into the buckle

安装完毕
Installation finished

加装卡片 Load Card



准备好打印机
Prepare the printer

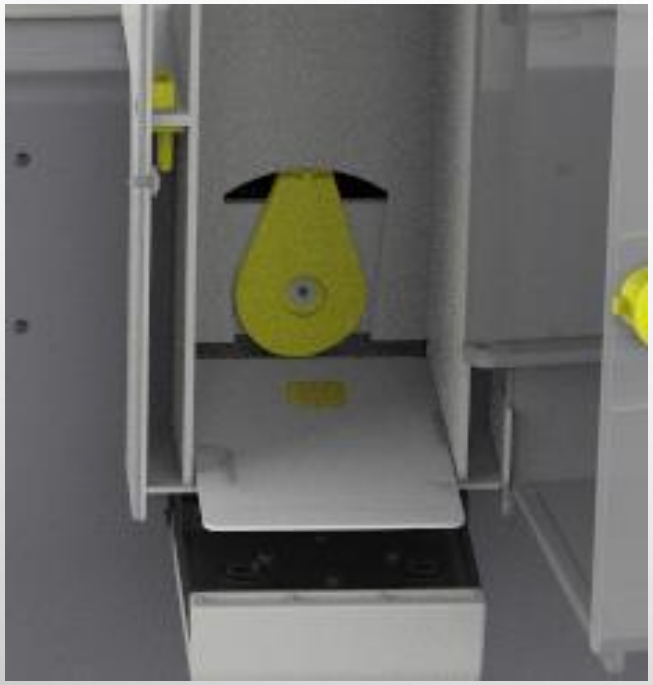
打开卡盒
Open the card-box

放入卡片
Load card

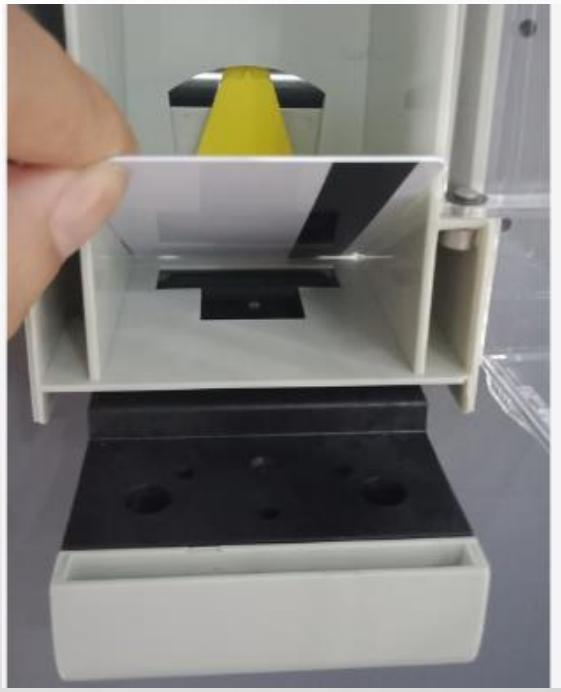
放入压卡板
Counterweight Card

关上卡盒
Close the cardbox

芯片及磁条卡放置方向
Placement Direction of Chip Card and Magstripe Card

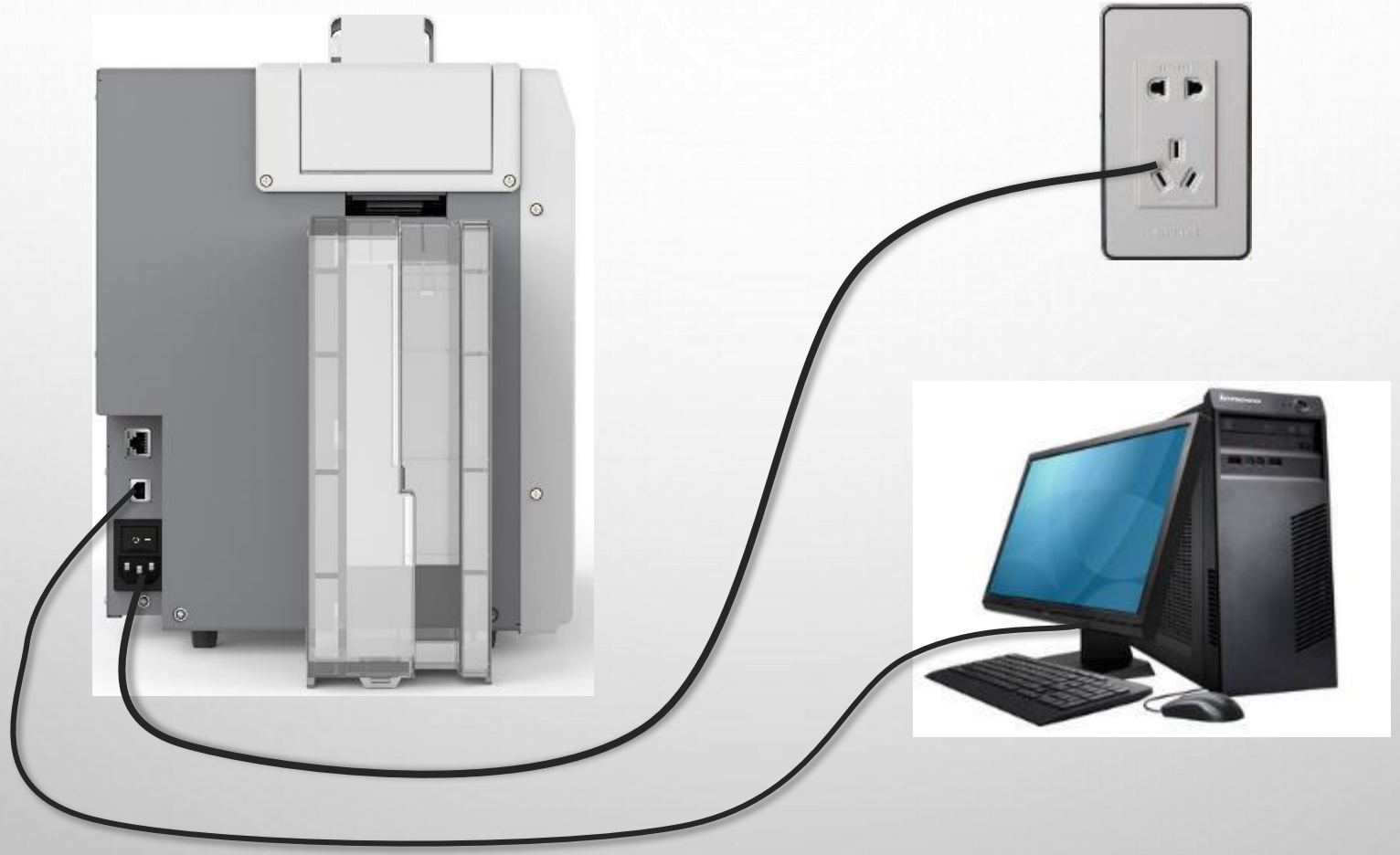


接触式IC卡放置示意图
Contact IC card direction



磁条卡放置示意图
Magstripe card direction

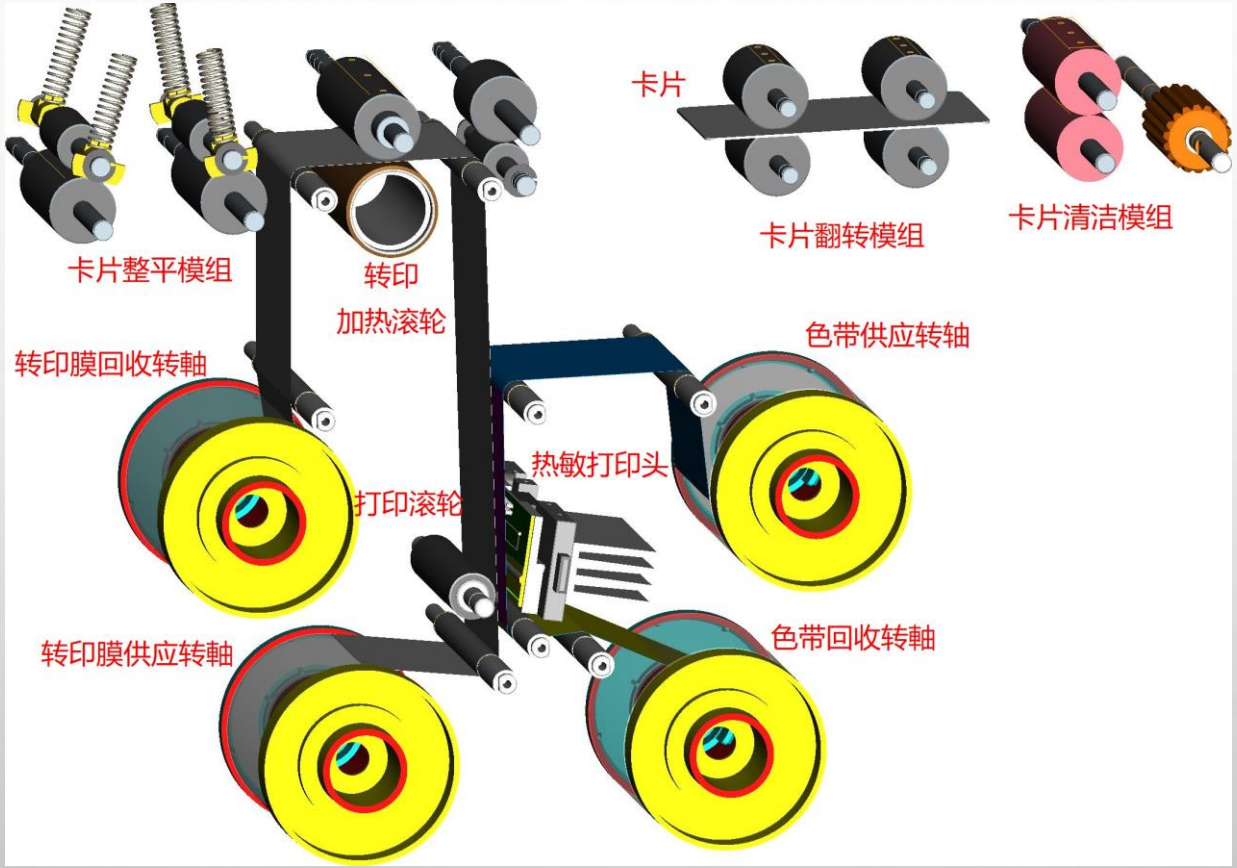
连接电脑 Connect Computer



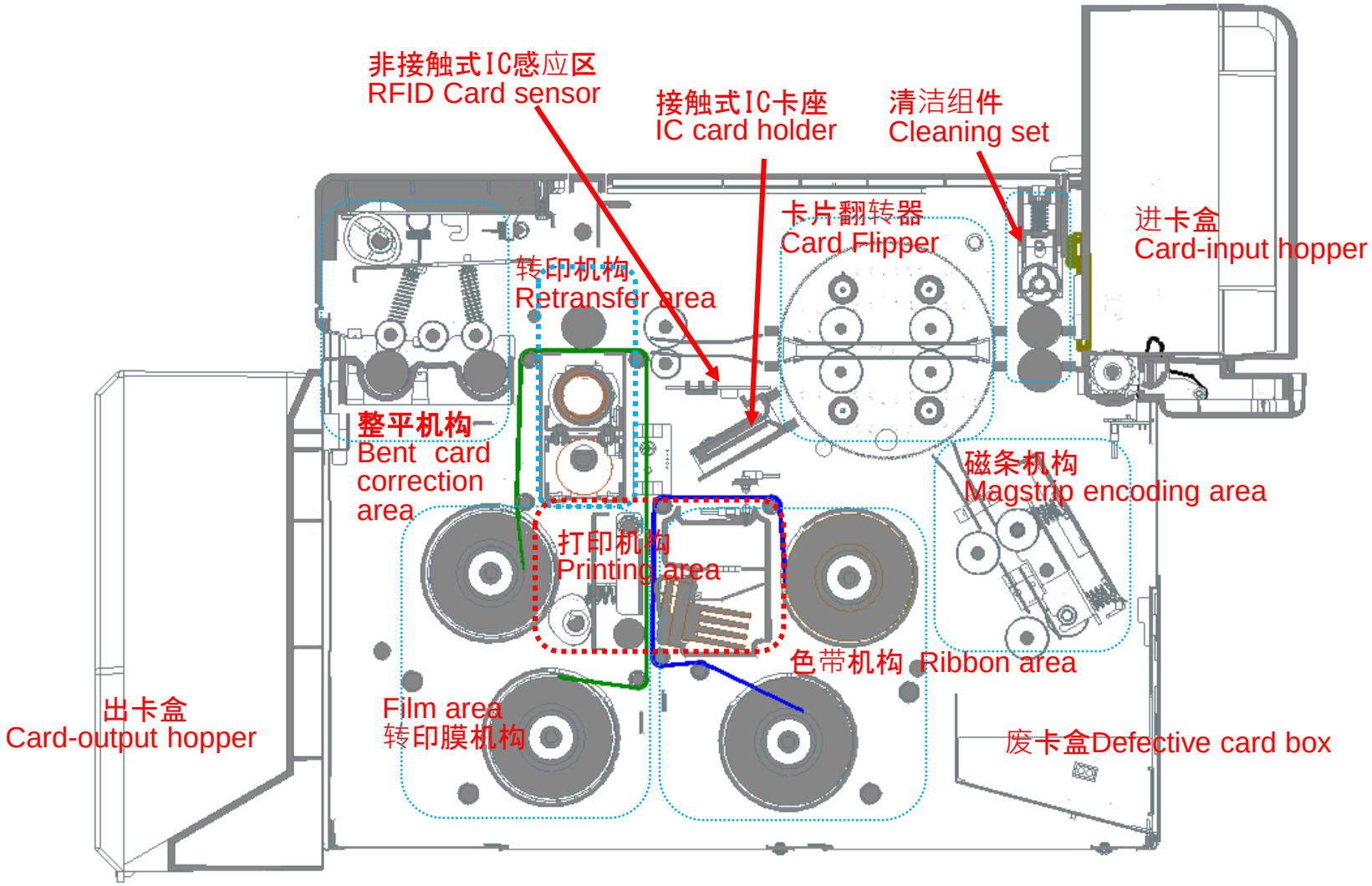
R600 结构功能介绍

Introduction for R600 Structure & Function

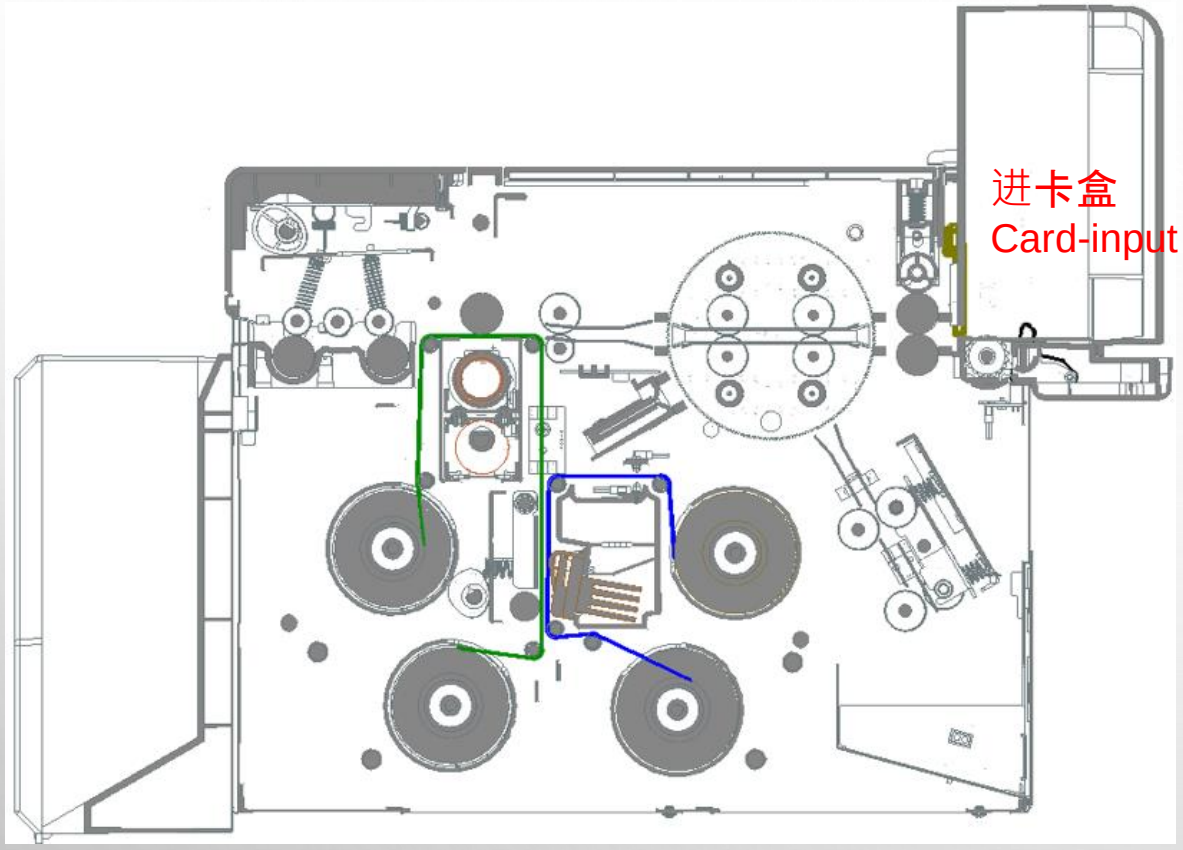
再转印证卡打印机打印原理
Retransfer Card Printer Printing Theory



R600 热升华再转印证卡打印机功能模块
R600 Internal Main Structural Parts



进卡盒 Card-input Hopper

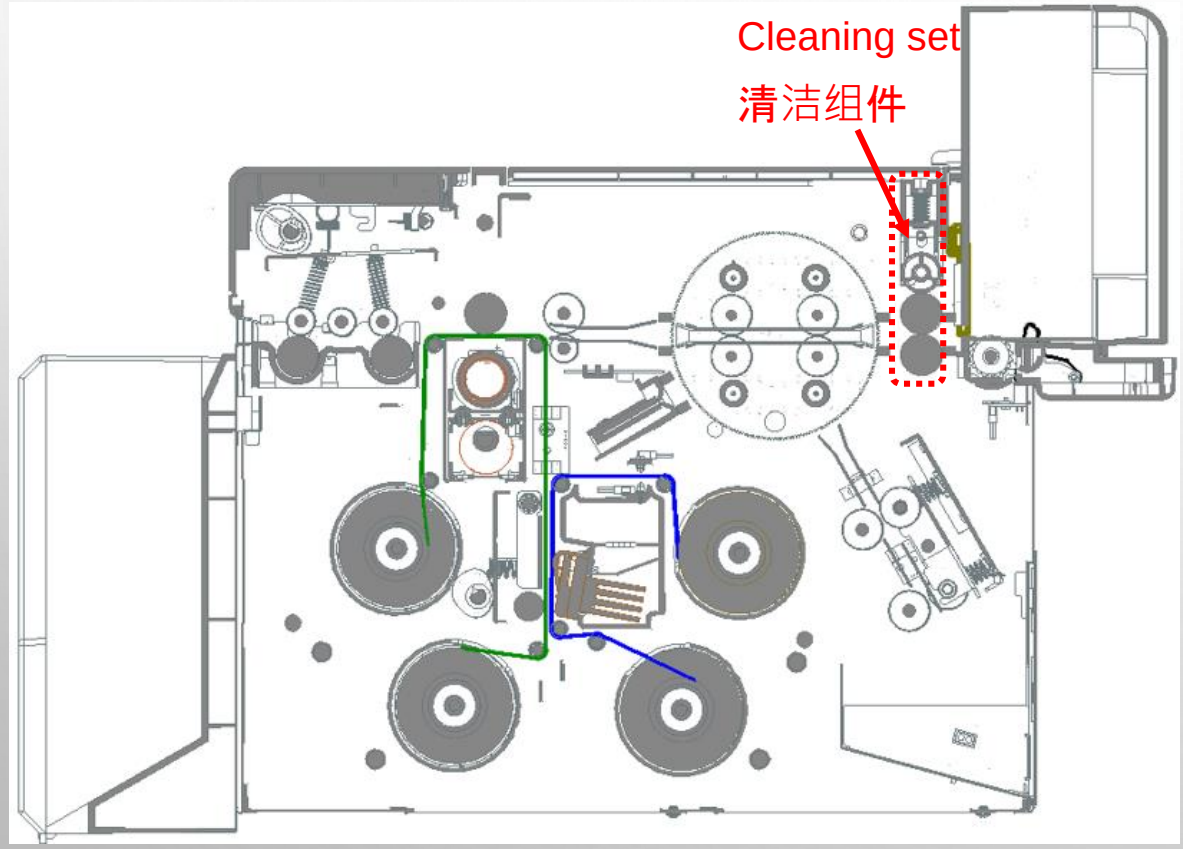


- 可放置0.76mm厚度卡片200张
- Available to load 200 cards with standard thickness 0.76mm

- 支持0.3-1.05mm不同厚度卡片调整。
- Support different card thickness from 0.3 to1.05mm

- 卡盒为可拆卸式，取下卡盒后，可手动单张进卡
- The card box is removable, manual card feeding is available after remove it.

清洁组件 Cleaning Set



- 卡片清洁组件具有静电吸附力，表面光滑的清洁滚轮吸附卡片上的灰尘和脏污。
- Cleaning set has electrostatic adsorption, the smooth cleaning roller can absorb the dust and dirt of card surface.

- 可更换式的集尘胶轮上覆有双面胶，用于黏取清洁滚轮从卡片上沾黏下来的附着物，提高并保持清洁效果。
- There are double side adhesive on the rubber roller, which are used to take the adhesion of the cleaning roller from the card to improve and maintain the cleaning effect.

卡片翻转器 Card Flipper

- 卡片翻转器接收进入的卡片，起中转作用。
- The card flipper receives incoming cards and acts as a transited

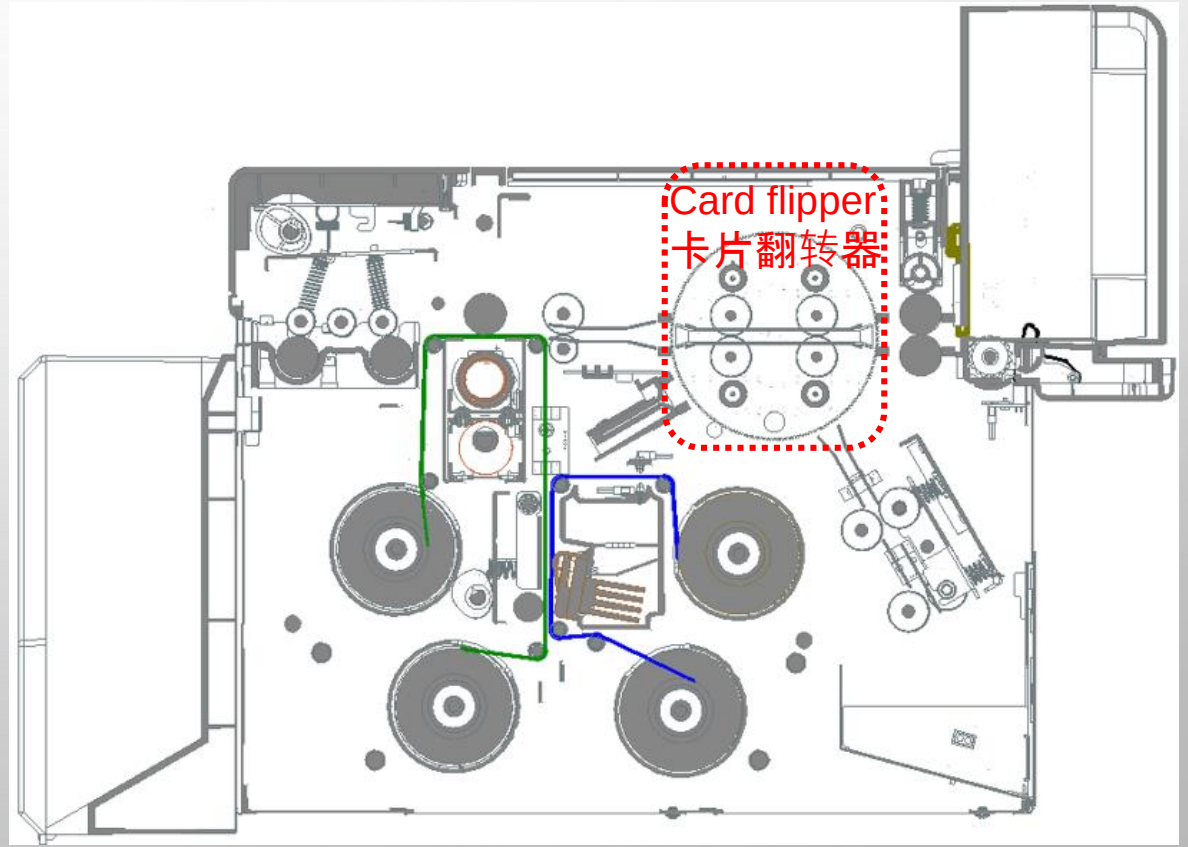
- 把卡片送入转印机构，若有双面转印需求，则将卡片反转至背面后送往转印机构。
- The card is sent to the retransfer area, and if there is a need for double-sided printing, the card is reversed to the back and sent to the retransfer area

- 把卡片送往磁条机构
- Send the card to the magnetic stripe area.

- 把卡片送往接触式IC区域
- Send the card to the contact ID card area.

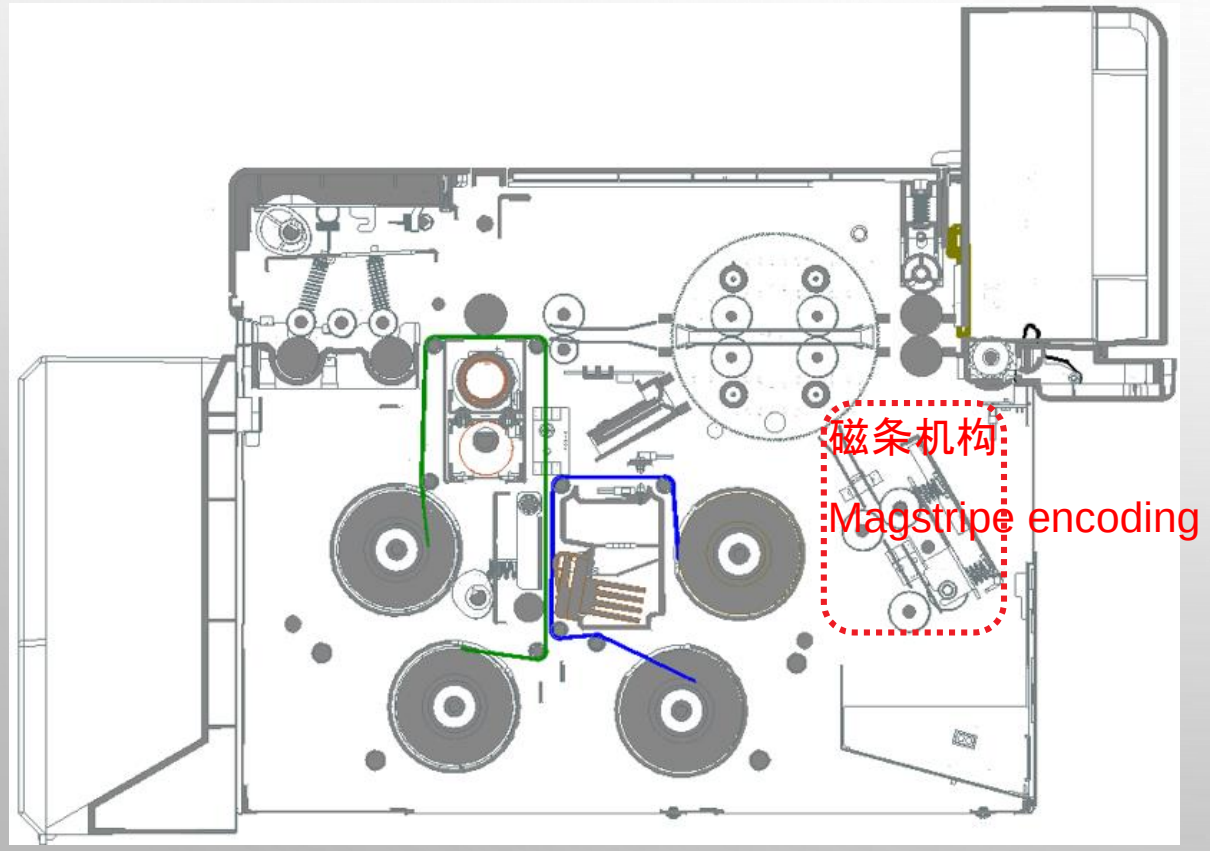
- 把卡片送往非接触式IC区域
- Send the card to the contactless ID card area.

- 把卡片送往废卡盒
- Send the card to the defective card box area.

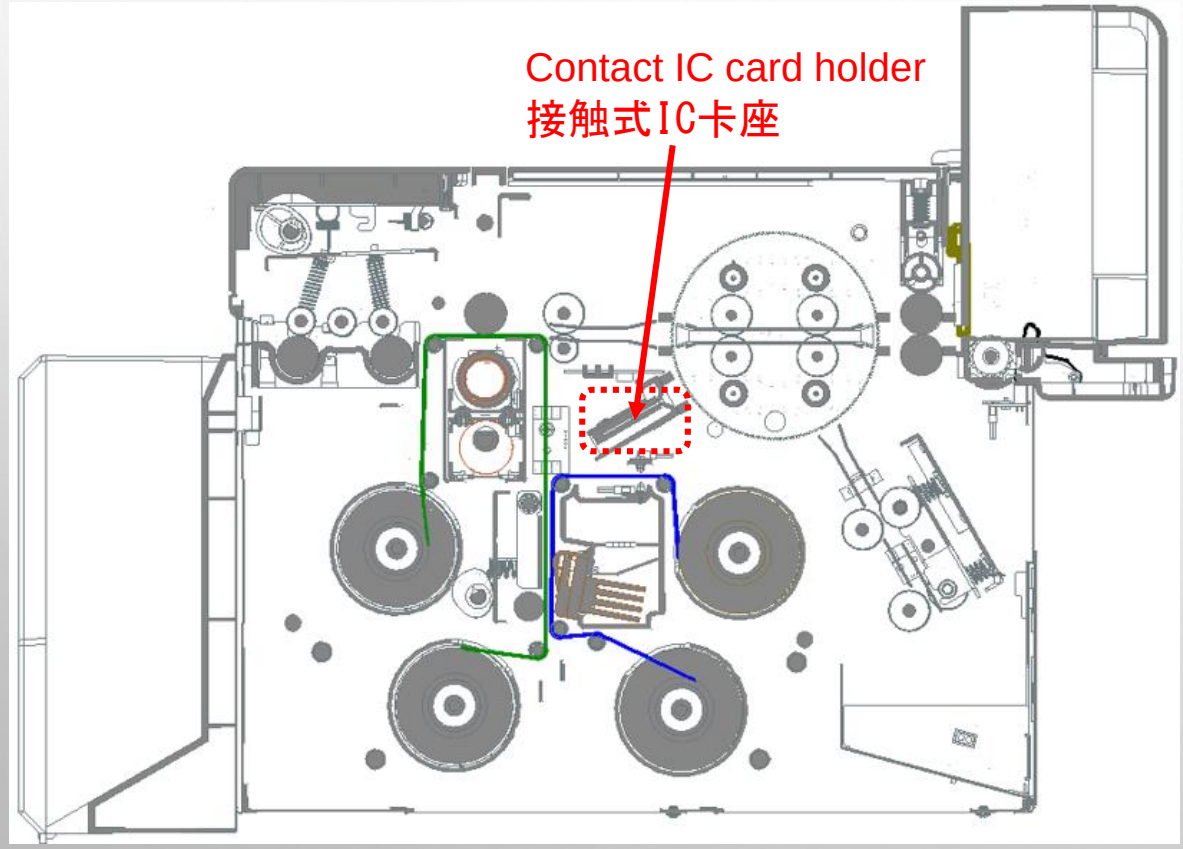


磁条机构 Magstripe Card Encoding Area

- 磁条卡移动到磁条机构轨道后，通过磁头写入或读取磁条卡的磁条信息。
- It can read/write magstripe card when card move here. (After the magstripe card is moved to the track of the magstripe encoding area, its information will be encoded through the magnetic head).

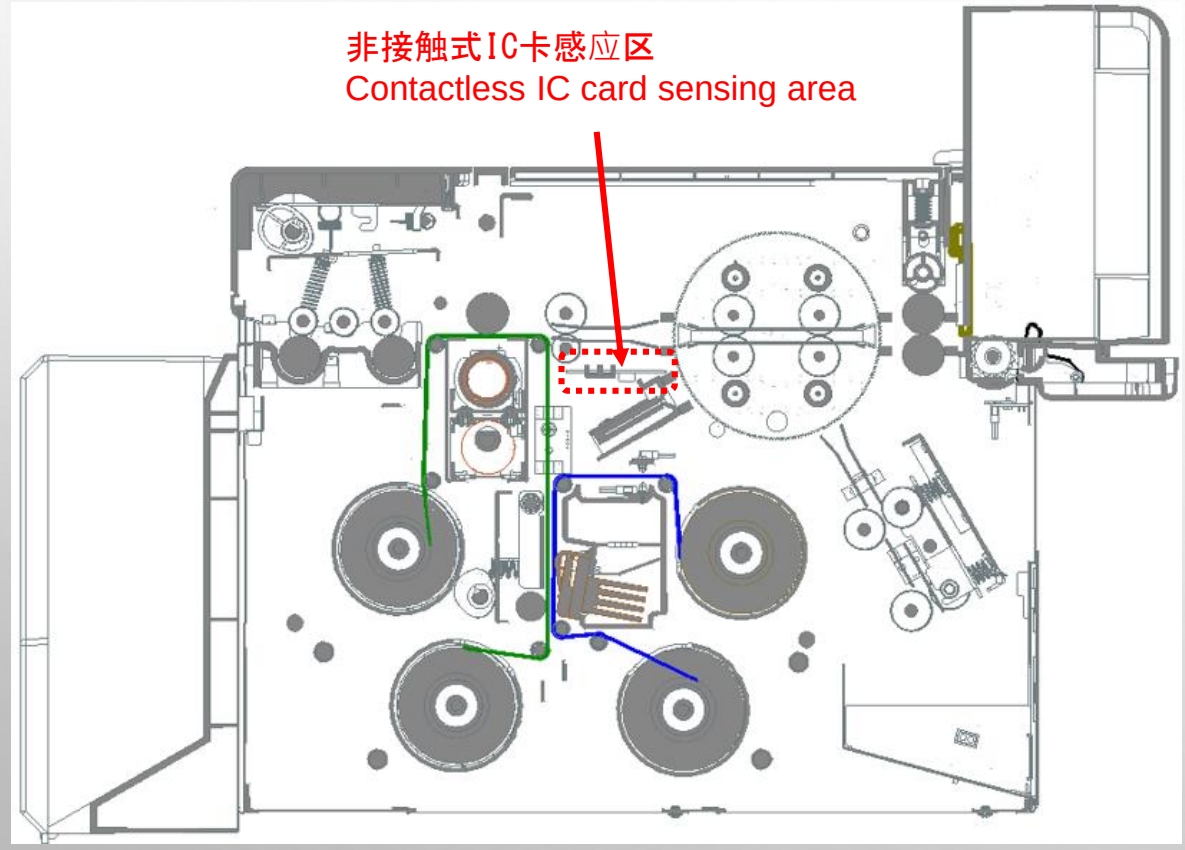


接触式IC卡座 Contact IC Card Holder



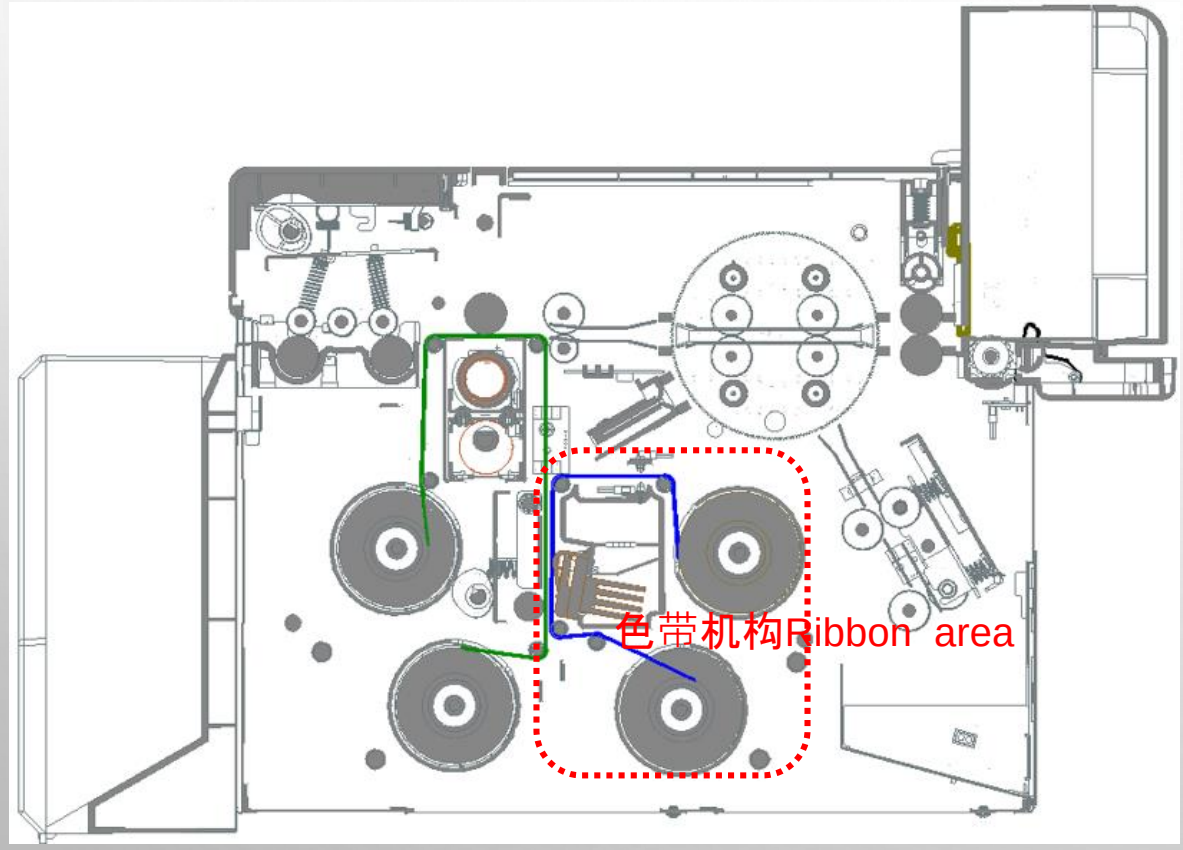
- 卡片插入到接触式IC卡座后，通过智能卡模块写入或读取芯片卡信息。
- When chip card move to this place, it can make chip encoding. (After the card is inserted into the contact IC card holder, the chip card data is encoded through the smart card module)

非接触式IC卡感应区 Contactless IC Card Sensing Area



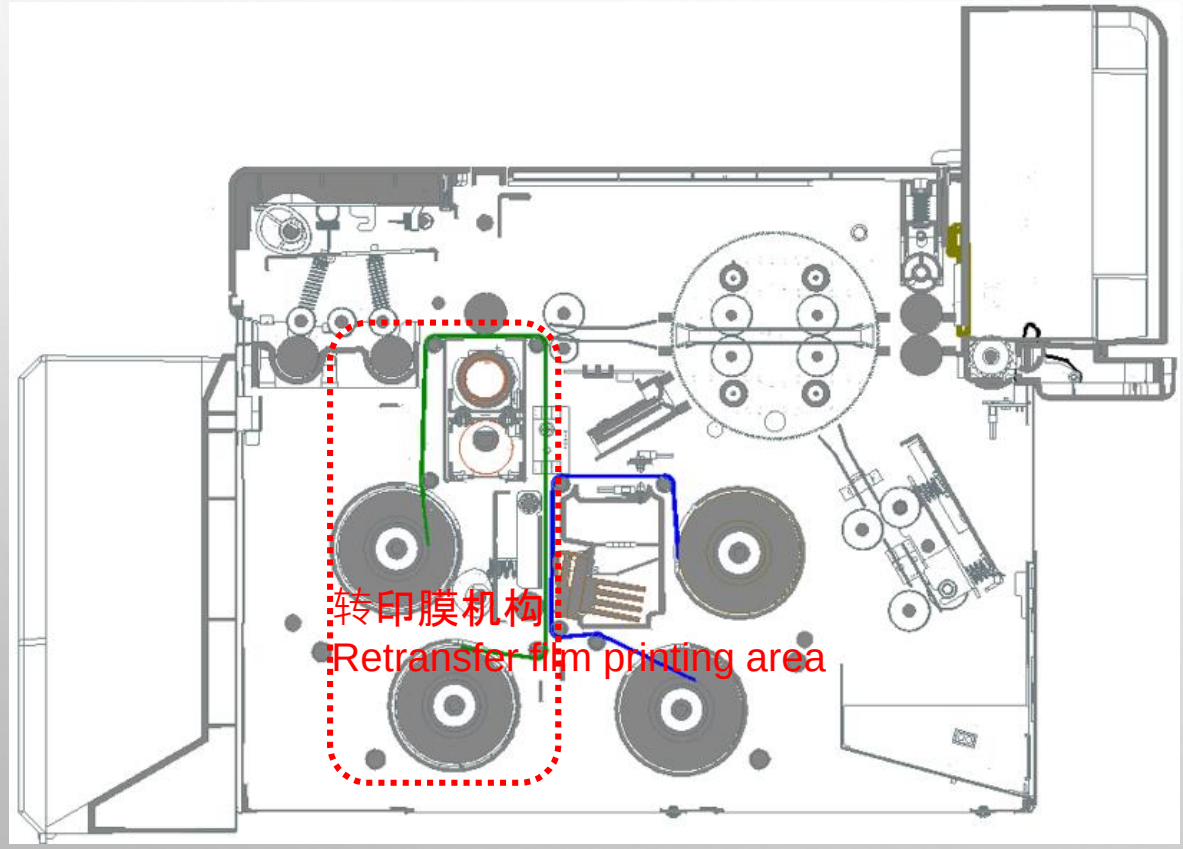
- 卡片移动到非接触式IC卡感应区后，通过智能卡模块写入或读取芯片卡信息。
- When the card move to this place, it can make contactless chip card encoding.(After the card is moved to the contactless IC card sensing area, the chip card information is encoded through the smart card module)

色带机构 Ribbon Area



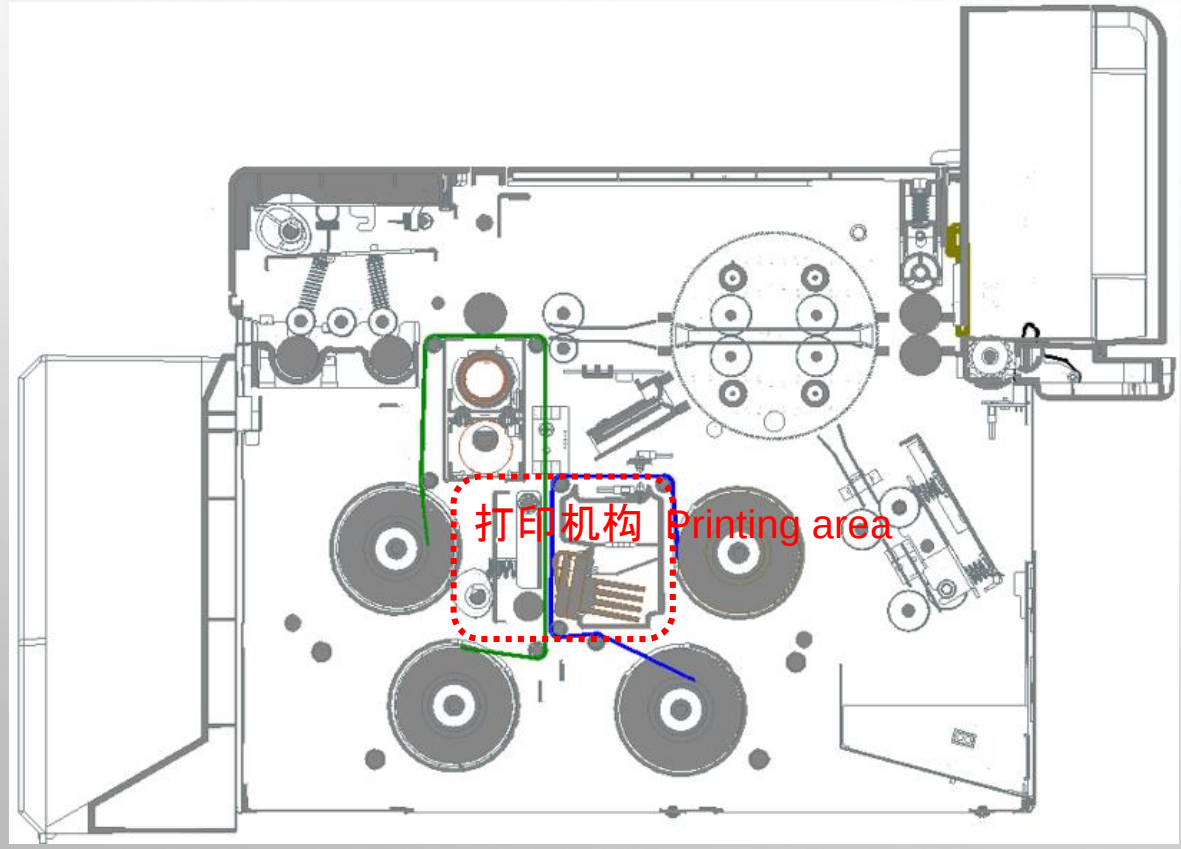
- 通过二个直流电机与传感器，控制热升华色带以适当的张力，在色带架设定缠绕的路径上转动，通过色带传感器侦测色带上每个颜色的边缘，实现套色打印。色带有YMCK用于彩色打印，另有K、UV... 等单色应用。
- Through 2 motos and sensors to control the ribbon tension and rotation. Through ribbon sensors to detect the edge of each panels to achieve 5 panels printing in the same locations. There are YMCK, K, UV ribbon for your option.

转印膜机构 Transfer Film Area



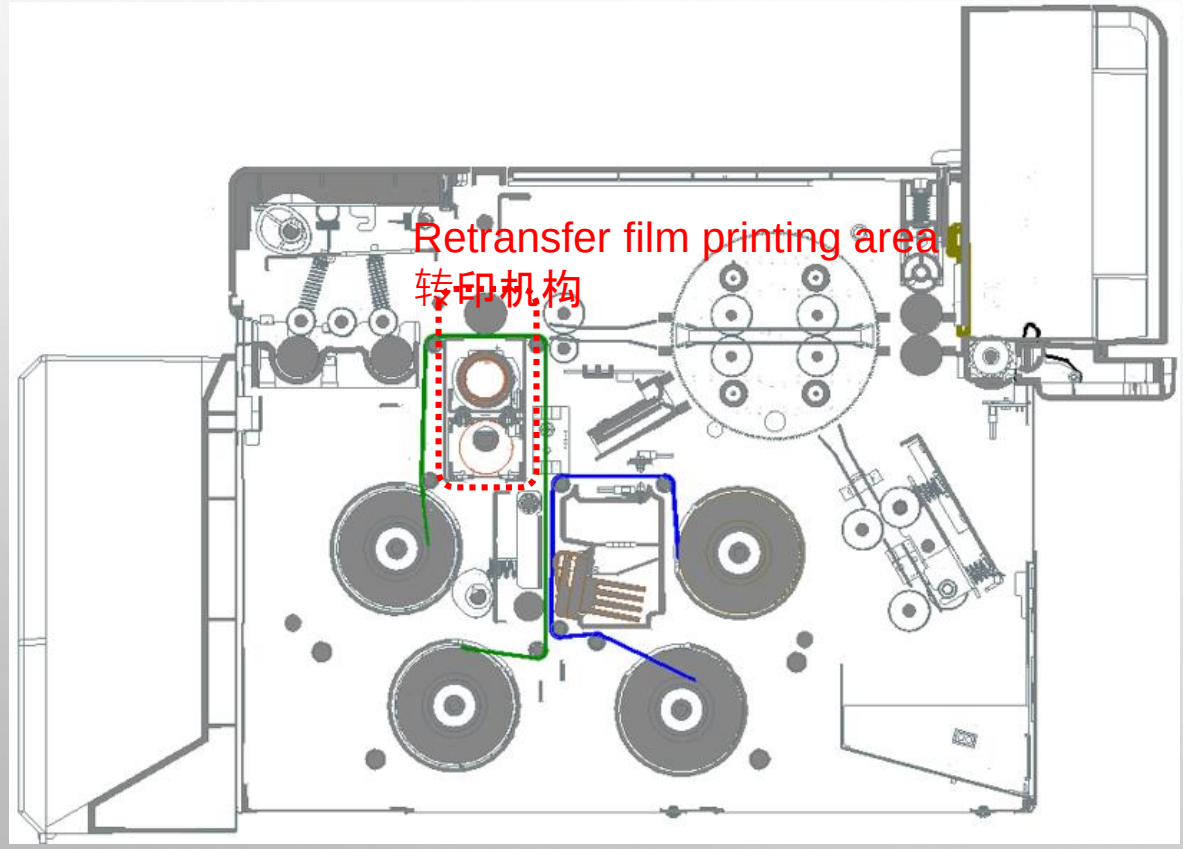
- 通过一个直流电机、一个步进电机与传感器，控制转印膜以适当的张力与打印速度，在转印膜架设定缠绕的路径上转动，通过转印膜传感器侦测转印膜上黑色定位条的边缘，实现精准套色打印。
- Through a DC motor, a stepper motor and a sensor to control the tension and printing speed of transfer film. Through the sensors to detect the edge of each back lines on the transfer film, it can achieve perfect positioning printing.

打印机构 Printing Area



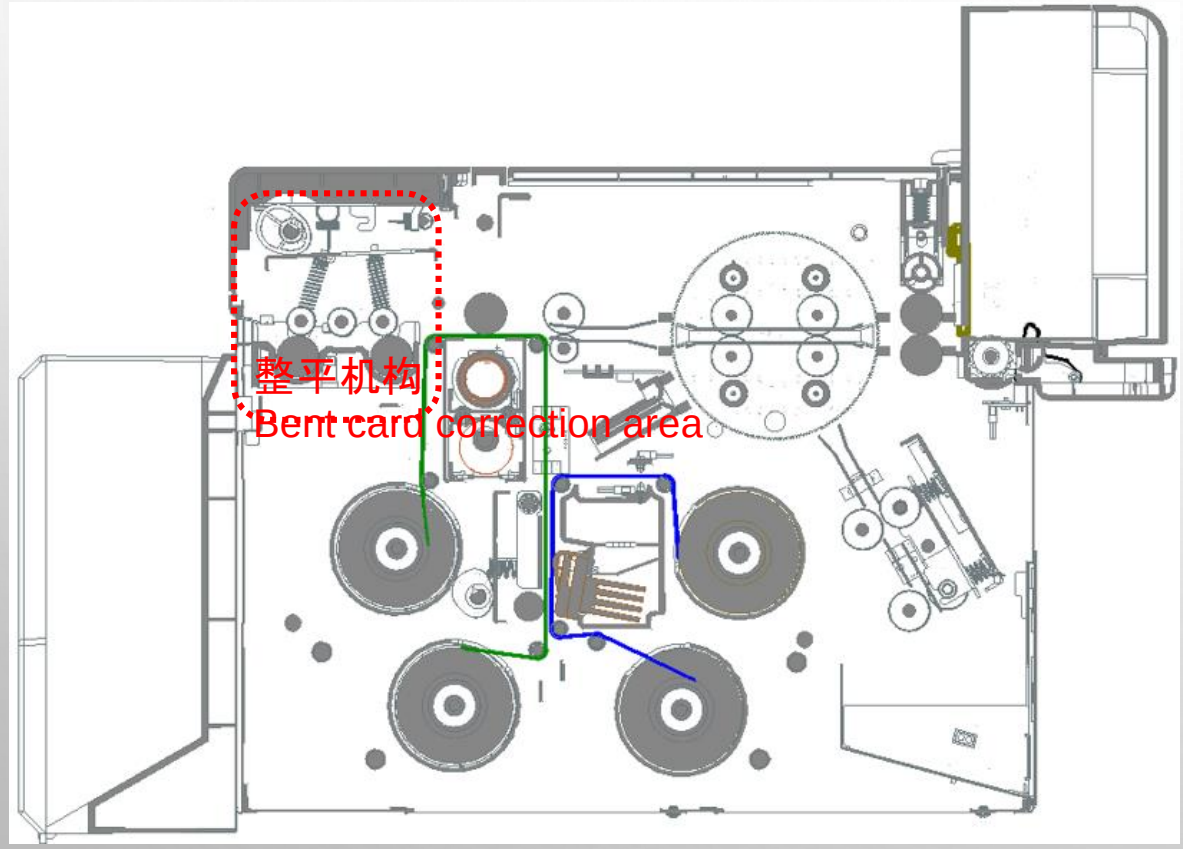
- 利用600dpi热敏打印头与橡胶打印滚轮之间紧压着色带和转印膜，通过受数码控制的热敏打印头加热加压将色带上的染料有序的印到转印膜上形成图像。
- Use 600dpi print head and rollers to press the ribbon and film, through digitally controlled print head heating and pressurizing, the dye on the ribbon is printed in order to the transfer film to generate image.

转印机构 Retransfer Area



- 通过转印加热滚轮与一橡胶滚轮之间紧压着印有图像的转印膜与卡片，利用加热加压剥离转印膜，使印有图像的接收层离开塑料基底膜而转印到卡片表面上。
- Through heating the retransfer roller and a rubber roller to press the film and pvc card, use heating and pressurization to strip the transfer film, so that the receiving layer printed with the image leaves the plastic substrate film and transfers it to the card.

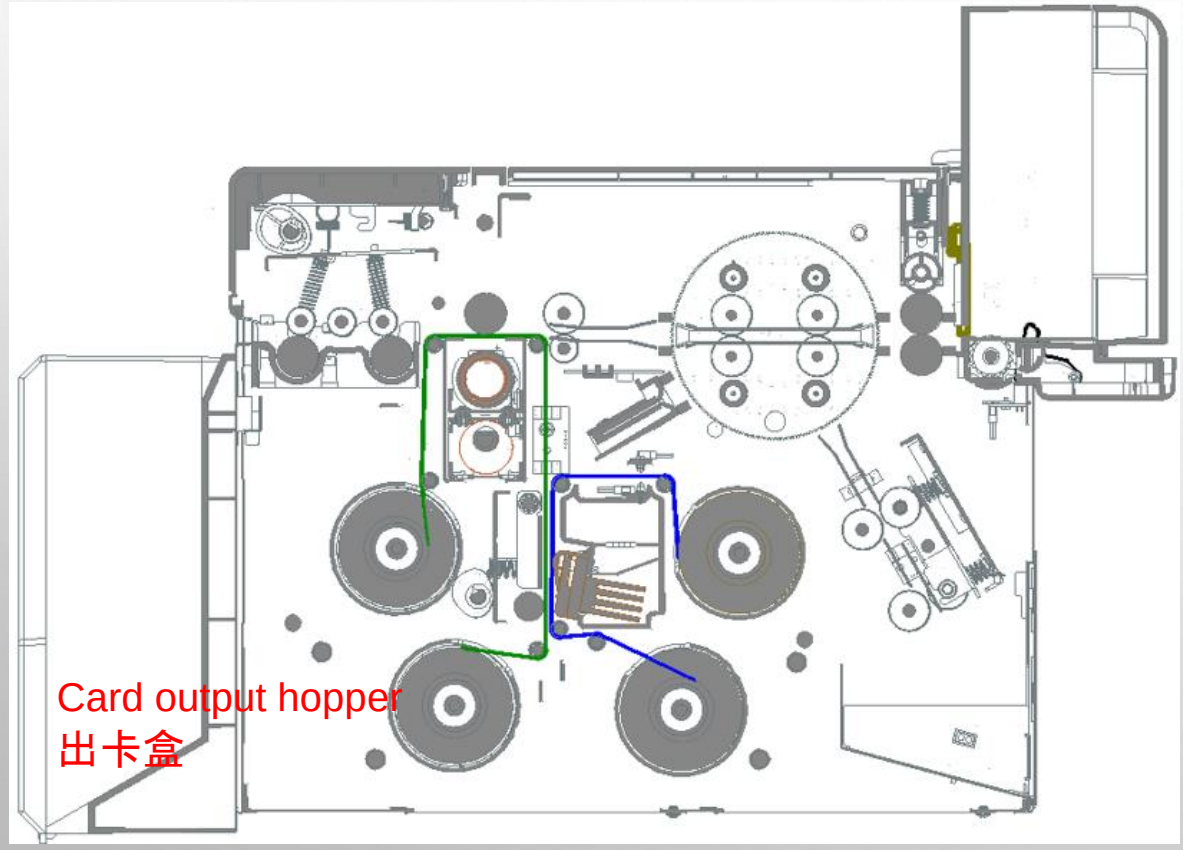
整平机构 Card Bending Correction Area



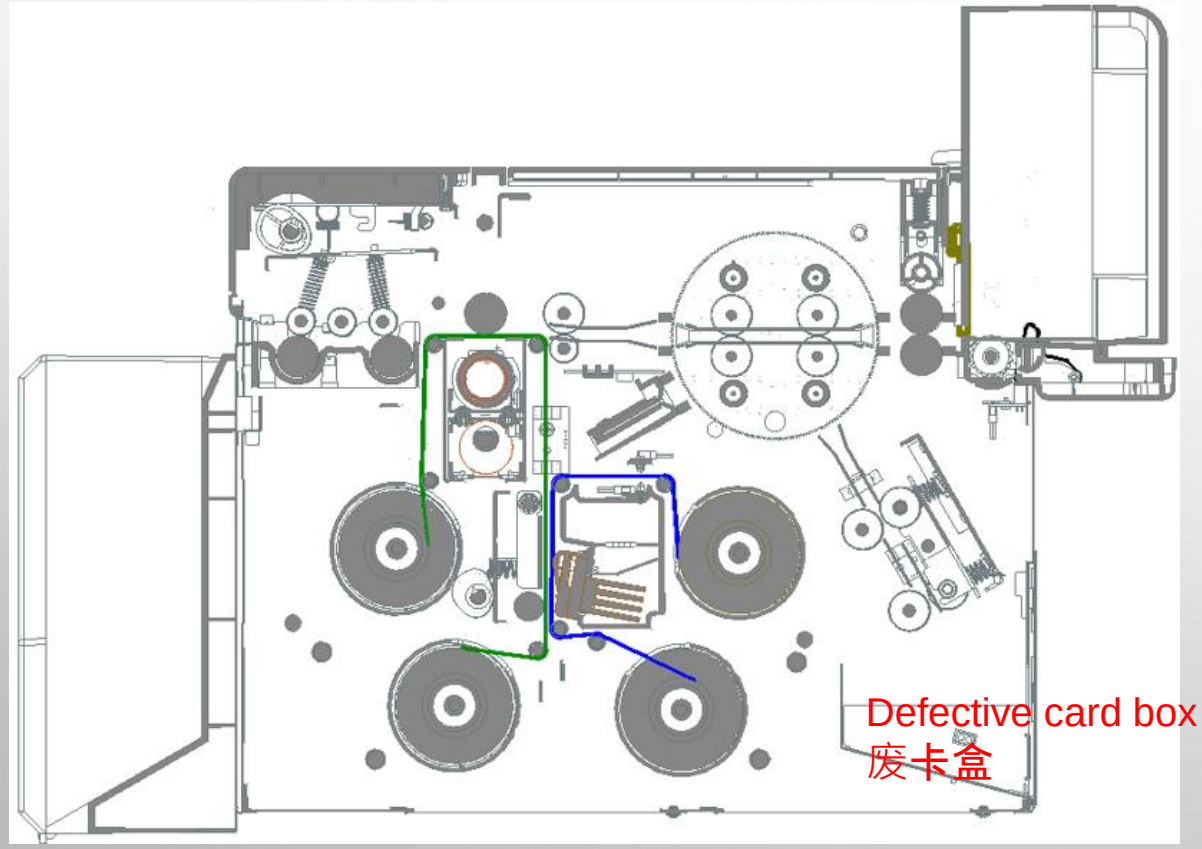
- 将卡片双面不均匀受热所导致的弯曲进行矫正，可通过矫正速度与次数调整最佳矫正参数.
- Correct the bent card which caused by unbalanced high temperature, we can adjust the correction speed and frequency(2 times, 3 times) to get the best correction parameters.

出卡盒 Card Input Hopper

- 可收集堆叠0.76mm厚度卡片200张。
- Load 200 cards with standard thickness 0.76mm



废卡盒 Defective-Card Box



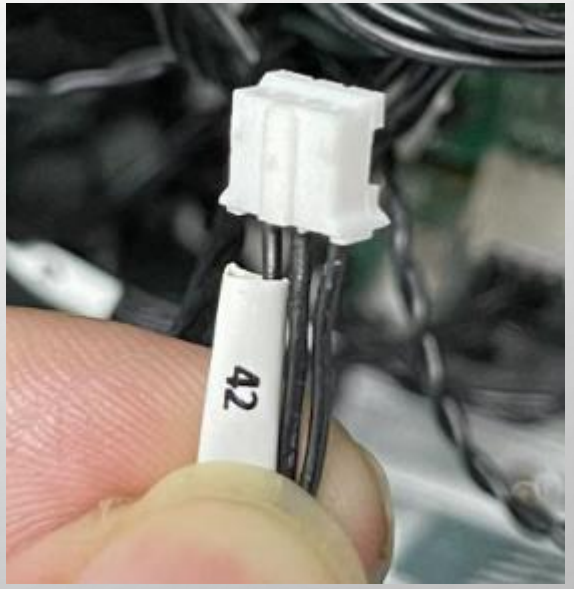
- 可收集堆叠0.76mm厚度卡片25张。芯片卡跟磁条卡数据写读失败时可移到此处。
- Load 25 cards with standard thickness 0.76mm, you can move card to this box when failed to encoding the chip card/magstripe card.

R 系列常见故障解决方案

Solutions for R series Card Printer Failures

R PRINTER ELECTRONIC COMPONENTS-SENSORS 1

Structure	Sensor Name	Motherboard Cable Number	Sensor Cable Number
Ribbon Structure	Ribbon Supply end Sensor	J43	B18
	Ribbon Pickup end Sensor		B19
	Ribbon light	J8	8
	Ribbon light sensor	J9	9
Retransfer film Structure	Retransfer film Pickup End Sensor	J34	34
	Retransfer film Positioning Sensor	J5	5
Printing Structure	Printing cam sonsor(Up)	J7	B23
	Printing cam sonsor(Dowm)		B24
Retransfer Structure	Heat rollor cam sensor(L)	J6	B20
	Heat rollor cam sensor(R)		B21
Bent card correction Structure	Cam sensor(Down)	J24	B33
	Cam sensor(Up)		B34
Card Flipper Structure	Flipper sensor(L)	J10	B37
	Flipper sensor(R)	J42	42
Card passage	Card Input position sensor	J11	B25
	Flipper position sensor		B26
	Contactless IC card position sensor		B27
	Contact IC card position sensor		B28
	Bent card correction position sensor	J23	B29
	Card Output position sensor		B30
Card Input Structure	No card sensor	J40	40
	Magnetic sensor(Up)	J41	B32
	Magnetic sensor(Down)		B31



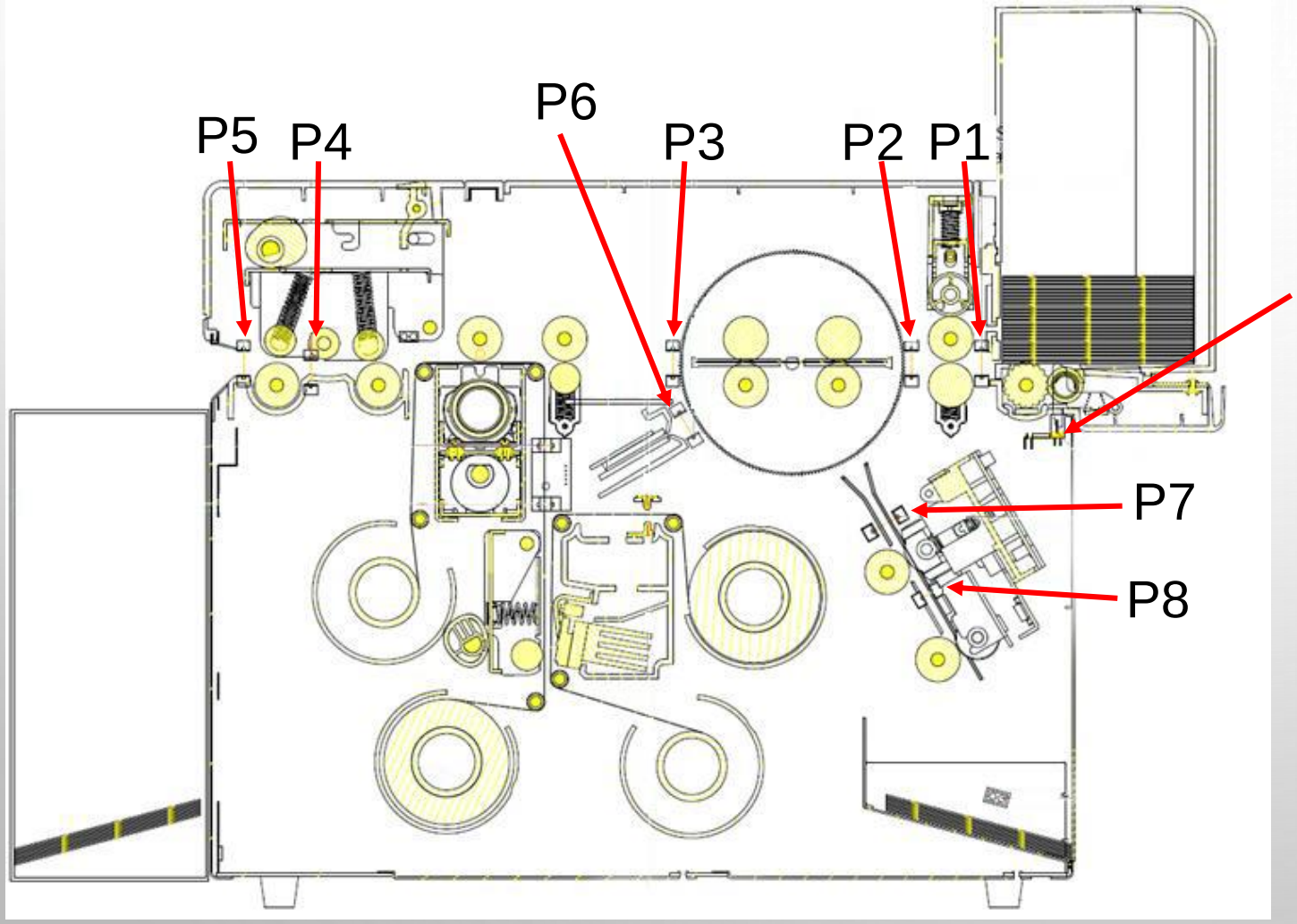
R PRINTER ELECTRONIC COMPONENTS-SENSORS 2

Structure	Sensor Name	Motherboard Cable Number	Sensor Cable Number
Ribbon Structure	Ribbon Supply end Sensor	J43	B18
	Ribbon Pickup end Sensor		B19
	Ribbon light	J8	8
	Ribbon light sensor	J9	9
Retransfer film Structure	Retransfer film Pickup End Sensor	J34	34
	Retransfer film Positioning Sensor	J5	5
Printing Structure	Printing cam sonsor(Up)	J7	B23
	Printing cam sonsor(Dowm)		B24
Retransfer Structure	Heat rollor cam sensor(L)	J6	B20
	Heat rollor cam sensor(R)		B21
Flat Structure	Flat cam sensor(Down)	J24	B33
	Flat cam sensor(Up)		B34
Card Flipper Structure	Flipper sensor(L)	J10	B37
	Flipper sensor(R)	J42	42
Card passage	Card Input position sensor	J11	B25
	Flipper position sensor		B26
	Contactless position sensor		B27
	Contact card position sensor		B28
	Flat position sensor	J23	B29
	Card Output position sensor		B30
Input Structure	No card sensor	J40	40
	Magnetic sensor(Up)	J41	B32
	Magnetic sensor(Down)		B31

R PRINTER ELECTRONIC COMPONENTS - MOTOR

Structure	Motor Name	Motherboard Cable Number	Sensor Cable Number
Ribbon Structure	Ribbon Supply end Motor	J2	B11
	Ribbon Pickup end Motor		B10
			8
			9
Retransfer film Structure	Retransfer film Pickup End Motor	J29	B8
	Retransfer film Positioning Motor		B9
Printing Structure	Printing cam motor	J29	B7
Retransfer Structure	Heat rollor cam motor	J28	B6
Flat Structure	Flat Cam Motor	J28	B5
Card Flipper Structure	Flipper Card Feed Motor	J21	B1
	Flipper Flip Motor		B2
Card passage	Retransfer Position Card Feed Motor	J30	B3
	Flat position Card Feed sensor		B4
Input Structure	Card Input Motor	J27	27
	Magnetic position Card Feed Motor	J1	1

CARD JAM FAILURE



Sensor Number	Sensor position
P1	Sensor on Card Input Position
P2	Sensor for Card Flipper
P3	Sensor for Contactless IC Card Recognition
P4	Sensor for Bent Card Correction Structure
P5	Sensor on Card Output Position
P6	Sensor for Contact IC card Recognition
P7	Sensor on Magnetic Stripe track Position (Up)
P8	Sensor on Magnetic Stripe track Position (Down)
P9	Input Hopper Sensor for No card

CARD JAM/CARD FEEDING FAILED

Card Jam Error Code	Causes
0x10	The card is out of track when card moving, and no sensors detect the card
0x11	1、P1 sensor detected card；2、P1 sensor is dirty；3、P1 sensor's cables are in poor contact or sensor is damaged；4、Cleaning rollor does not rotate
0x12	1、P2 sensor detected card ；2、P2 sensor is dirty；3、P2 sensor's cables are in poor contact or sensor is damaged；4、Cleaning rollor does not rotate
0x13	1、P1 and P2 sensor detected card ；2、P1 and P2 sensors' cables are in poor contact or broken
0x14	1、P3 sensor detected card ；2、P3 sensor is dirty；3、P3 sensor's cables are in poor contact or sensor is damaged；5、The roller of transmit mechanism does not rotate
0x15	1、P4 sensor detected card ；2、P4 sensor is dirty；3、P4 sensor's cables are in poor contact or sensor is damaged；5、Card stick to retransfer film
0x16	1、P5 sensor detected card ；2、P5 sensor is dirty；3、P5 sensor's s cables are in poor contact or sensor is damaged；5、Output hopper is not installed properly, which affects the card dropping.
0x17	1、P4 and P5 sensor detected card ；2、Card stick to retransfer film; 3. P4 and P5 sensors' cables are in poor contact or broken
0x18	1、P6 sensor detected card ；2、P6 sensor is dirty；3、P6 sensor’s cables are in poor contact or sensor is damaged；
0x19	1、P7 sensor detected card ；2、P7 is dirty；3、P7 sensor'cables are in poor contact or sensor is damaged；
0x1A	1、P8 sensor detected card ；2、P8 sensor dirt or foreign objects；3、P8 sensor's cables are in poor contact or sensor is damaged；
0x1B	1、P7 and P8 sensor detected card ；2、P7 and P8 sensors' cables are in poor contact or broken
0x1C	Except above, other sensors detect card at the same time
Card Feeding Error Code	
0x51	ADF card feeding error
0x52	Back-end card feeding error
0x53	Front-end card feeding error
No-Card Error Code	
0x5E	When card moving to the front-end, the card is detected by no-card sensor

RIBBON/RETRANSFER FILM FAILURE

Error Description：	Error Code：	Error Reason：	Note：
Ribbon/Transfer Film Out	0x41/0x71	1. The number of chip is read as 0 during initialization	1. The chip margin is insufficient
		2. This error is also displayed if there is only one ribbon/retransfer film sheet left before dual-side printing starts	
Ribbon/Transfer Film Error	0x42/0x72	1. Failed to deduct the number of chip	1. Ribbon/transfer film chip problems
		2. Failure to read chip information during initialization	2. Related chip antenna problem
			3. PSAM problem
Ribbon/Transfer Film Missing	0x43/0x73	1. Chip cannot be read during initialization	1. The chips of ribbon/transfer film problem
			2. The antenna of related reading chips problem
Ribbon/Transfer Film Unsupported	0x44/0x74	1. The ribbon/film type is not a known type	1. The ribbon/film type is not a known type
		2. Ribbon code dose not match the printer code	2. Ribbon code dose not match the printer code
			3. Wrong chip content
Ribbon/Transfer Film Missing	0x45/0x75	1. The ribbon/transfer film is not tightened during the initialization process	1. Related grating or motor problem
Ribbon/Transfer Film Out	0x46/0x76	1. detected an expended ending mark during the printing process	1. Related sensors problems
Ribbon Not Match	0x47	1. There is a problem with the printing data transmission. For example, the K ribbon is placed but release YMCKO data.	1. The chips of ribbons are mismatch
Ribbon/Transfer Film Error	0x48/0x78	1. Overtime to find ribbon or transfer film	1. Occurred while ribbon preparing: Related sensor (including grating), related motor has problems
		2. The ribbon ready for printing is not as expected	2. Before printing: ribbon and chip mismatch, related sensor problems
		3. Failure to tighten the ribbon or transfer film during printing	3. After ribbon tighten: related grating has problems, related motor has problems
Ribbon/Transfer Film Error	0x49/0x79	1. Ribbon diameter is too large or too small	1. Ribbon and ribbon chip mismatch
		2. The ribbon does not match the ribbon chip: e.g. YMCKO ribbon but 1/2ymcKO chip, and vice versa.	2. Related grating problem
			3. the printed K mistake
Ribbon/Transfer Film Wrong Installation	0x4A/0x7A	1. Place ribbon into film location/ place film into ribbon location	1. The content of the relevant chip is incorrect
			2. Wrong relevant chip antenna cable

DOOR/CAM FAILURE

Error Deacription	Error Code	Reason	Note
Ribbon Door Open	0x21	Ribbon door is open	1. Ribbon door is not closed 2. Related sensors or cable error 3. The relevant motherboard components error 4. The reflective surface error
Defective card Box Full	0x23	Defective card box is full	1. Related sensors or cable error 2. The relevant motherboard components error 3. The reflective surface error
TPH Cam Error	0x31	Print head module not in place	1. Related sensors or cable error 2. Related motor error 3. Related gear error 4. The relevant motherboard components error
Flipper Error	0x33	Flip module not in place	1. Related sensors or cable error 2. Related motor error 3. Related gear error 4. The relevant motherboard components error
Heat Rollor Error	0x34	Heat module not in place	1. Related sensors or cable error 2. Related motor error 3. Related gear error 4. The relevant motherboard components error
Bent Card Correction Module Error	0x35	Bent Card Correction module not in place	1. Related sensors or cable error 2. Related motor error 3. Related gear error 4. The relevant motherboard components error

Main Failure

Error Deacription	Error Code	Reason	Note
Firmware error	0x01	Firmware update failure	1. Wrong update file 2. motherboard or core board problem
ADC Error	0x02	Print head does not reach required temperature within the expected time	1. print head module or related wire error 2. the main board related circuitry error
Pickup End Error	0x03	Grating on the supply side of the ribbon did not respond as expected	1. Ribbon supply side sensor (including the grating) error 2. Ribbon supply end motor error
Supply End Error	0x04	Grating on the supply side of the ribbon did not respond as expected	1. Ribbon pickup end of the sensor (including the grating) error 2. Ribbon pickup end motor error
ADC Error	0x05	ADC value abnormal	1. Power-on self-test voltage error 2. The relevant ADC reads a value exceeding the boundary 3. The temperature difference between the two thermistors on the heater is more than 15 degrees
Transfer film code error	0x06	Grating response of the recycling side of transfer film not as good as expected	1. Transfer film pickup end sensor (including the grating) error 2. Motor of the transfer film pickup end error
ADC Error	0x07	Heater does not reach required temperature in the expected time	1. Check if there is any abnormality in the thermistor position. 2. Check the related cable or circuit
fpga Error	0x08	fpga Error	1. FPGA on the motherboard error
fpga Update error	0x09	fpga Update error	1. Wrong update file 2. faulty motherboard or core board
LCD Update error	0x0A	LCD Update error	1. Wrong update file 2. faulty motherboard or core board 3. LCD module error
Auth. Error	0x61	PSAM is not installed or PSAM serial number does not match	1.PSAM is not installed or PSAM serial number does not match
Auth. Error	0x62	AU9580 abnormality on motherboard	1.AU9580 abnormality on motherboard
Auth. Error	0x63	Machine serial number and PSAM mismatch	1.Machine serial number and PSAM mismatch

End