CRT-591-B Card Dispenser Specification

CREATOR (CHINA) TECH CO., LTD.

6/F, Block C3, ZHIYUAN iPark, No.1001 XueYuan Road, NanShan District, ShenZhen, GuangDong, China.
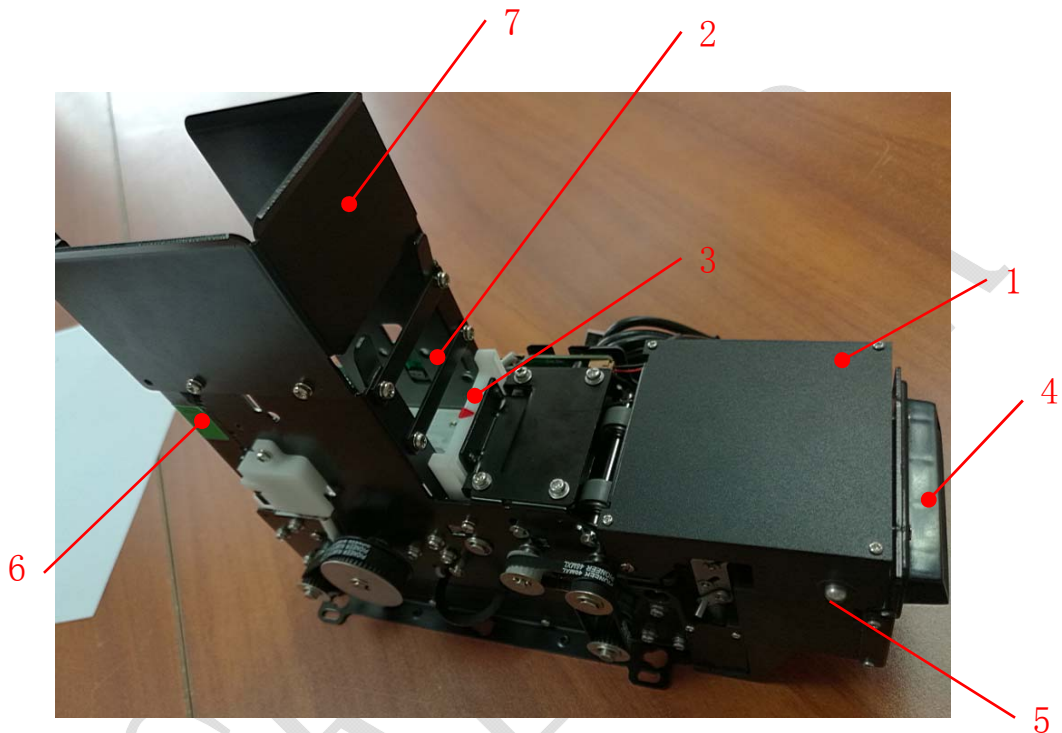
TEL:+86 755 26710691   FAX:+86 755 26710105

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● **Please carefully read specification before using this card dispenser machine.**

Main structure of CRT-591-B：

1-----card read component   2----- Card dispensing component

3----- Card Thickness Adjustment   4----- Card Bezel component

5----- 571 button   6----- 591B stacker baffle

7----- stacker for increase capacity of cards

Warning: Card issuing machine is forbidden to use above 30V voltage, if using, it will cause card issuing machine destroyed.

1、OVERVIEW

CRT-591-B is card dispenser machine with IC card reading/writing operation (Customized product mode: CRT-591-BES1)

Main features：

① Half length of standard card is available to be read, dispensed and captured

② PC/SC reading module, RS232 communication for card dispensing controlling

③ Multi-units communication: Support Max.8 sets

④ The stacker is of 400 pcs of cards capacity

2、Main function

1) Combination of card issuing and IC card encoding。 IC card need to comply with relevant standards.

2) Card-Empty, Pre-card empty detection function.

3) Two methods of capturing cards: Error card bin and path (By removing the bars on the bottom)

4) Double hooks mechanism: The patented technology is compatible with dispensing and capturing cards of different lengths, and the operation is simple and convenient.

5) RS-232 and PC/SC dual channel control motheds，Support Multi-communication via RS232 interface

3、Technical specification

Items	Parameter instructions	Explanation
Support card type	type：ISO7816 standard IC card support to dispense IC card physical characteristics ：IS07810 and 7811、IS07811 - 2、IOS7811 - 4、ISO7811 - 5 and ISO7811 - 6 standard card dimension：IS07810ID - 1 – IC card standard：IS07816 standard，（AT24C01、24C02、……、24C256；SLE4447、SLE4428；CPU T=0/T=1）etc half length card specification：Len：42～43mm 　　　　　　　width：53.92 ~ 54.18 mm 　　　　　　　thickness：0.76mm±0.08mm	
Reader module	Support to read & write contacting IC card PC/SC module，able to operate SIM card（CPU card）	
Dispensing cards	1. Pushing the card out by using hook mechanism,the card is not scratched during card feeding 2. Hook supports half length standard card	
Stacker	1. Capacity is about 400pcs； 2. Support card less detection (7~15) 3. Support card empty detection 4. Removable heavy block is set in the stacker	
Card captured	1. Support to capture the card to error card bin when it is diapensed	

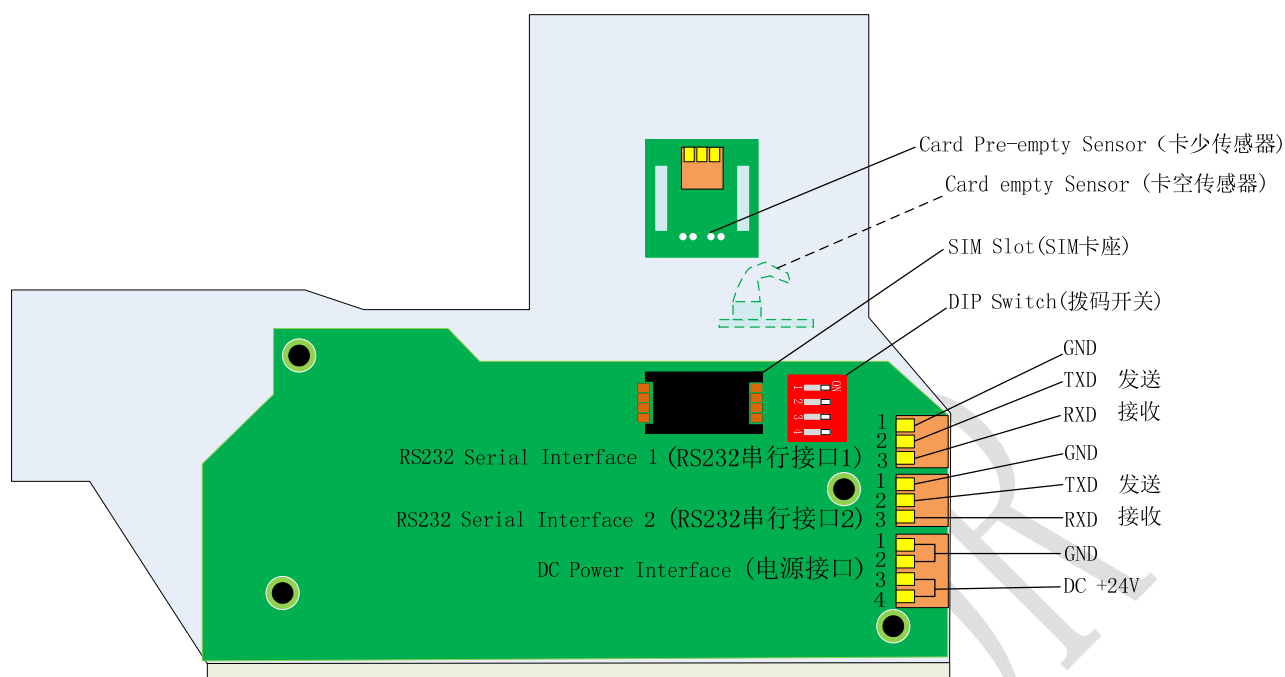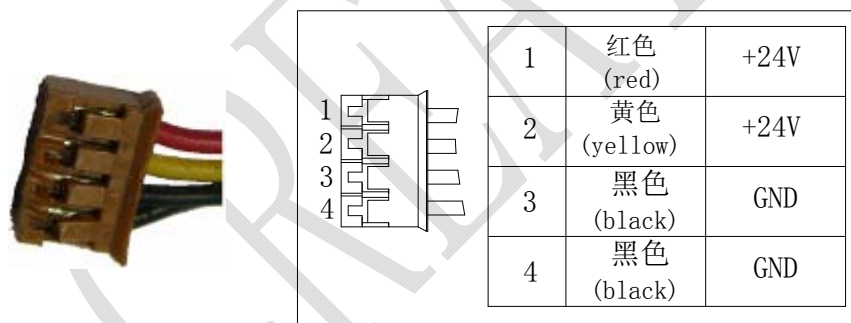|		
	2. Support the structure of the error card bin, the error card bin without the lock structure is able to be drawed out from the side of the card machine，its capacity ≥10 flat cards	
Bezel	1. With Bezel	
Reset	1. Support power on reset function (initialization) 2. Software reset function (initialization)	
Command	1. Support the card moving commands 2. Support the card captured commands 3. Software supports dynamic identification standard length card or half length card in stacker, USB read card method（support PC/SC）	
Life time	1. Transportation： 100,000times 2. IC card contact pin：300,000times，error rate＜1000 times	
Interface	1. Support multi-communication RS232 3PIN 2. Power input (4PIN) 3. Support firmware upgrading 4. Support DLL for customers	
Voltage and current	1. DC 24V±5% 2. Idle current≦0.2A，peak current≦2A	
Certification	1. Certified EMC/CE（GB9254、GB/T17618、GB/T17626 standard requirement） 2. ROHS 3. Certified EMV L1	
System	1. Support windowXP， window7、 8	
Environment conditions	1. operation 0℃～50℃ 2. storage -25℃～70℃ 3. operation humidity 5%～90%（non condensing）	
dimension	Max size L*W*H （257mm*100mm*397mm）	
Spare parts	Provide cables for power supply and PC communication	

4、**Accessory Description**

1）standard spare parts：

Name	BOM	Qty	Remark
591B heavy block	0591-0G971	1	
4PIN power cable	L14-333-153	1	4PIN、 length 1.5m
RS232 communication	L10-006-163	1	3PIN、 length 1.6m

5、Interface instructions

Card Pre-empty Sensor（卡少传感器）
Card empty Sensor（卡空传感器）
SIM Slot(SIM卡座)
DIP Switch(拨码开关)

RS232 Serial Interface 1 (RS232串行接口1)
GND
TXD 发送
RXD 接收
GND

RS232 Serial Interface 2 (RS232串行接口2)
TXD 发送
RXD 接收

DC Power Interface（电源接口）
GND
DC +24V

Picture 1. CRT-591-B interface sketch map

1	红色 (red)	+24V
2	黄色 (yellow)	+24V
3	黑色 (black)	GND
4	黑色 (black)	GND

Picture 2.　4PIN Power supply cable

卡机 RS232串口线　　　　　　　　　　　　　　　电脑PC DP9PIN座

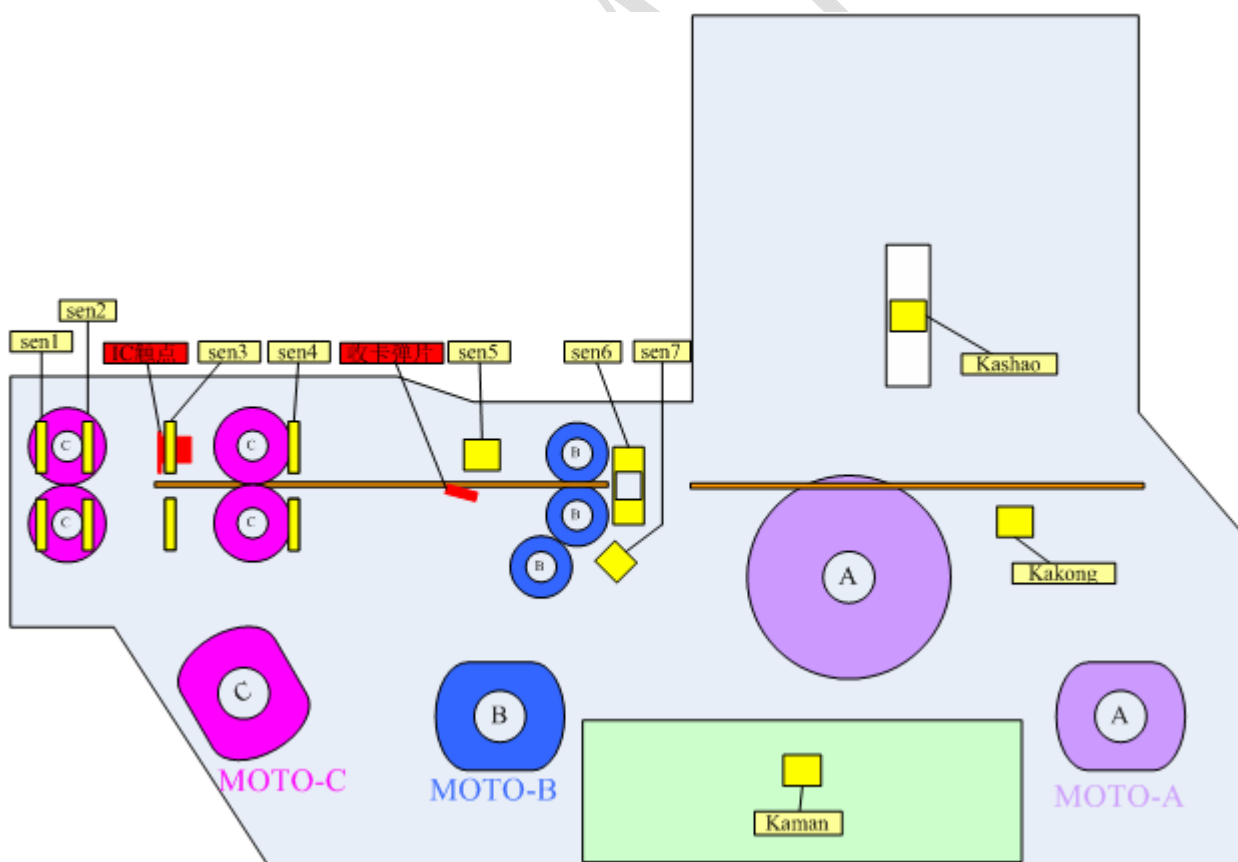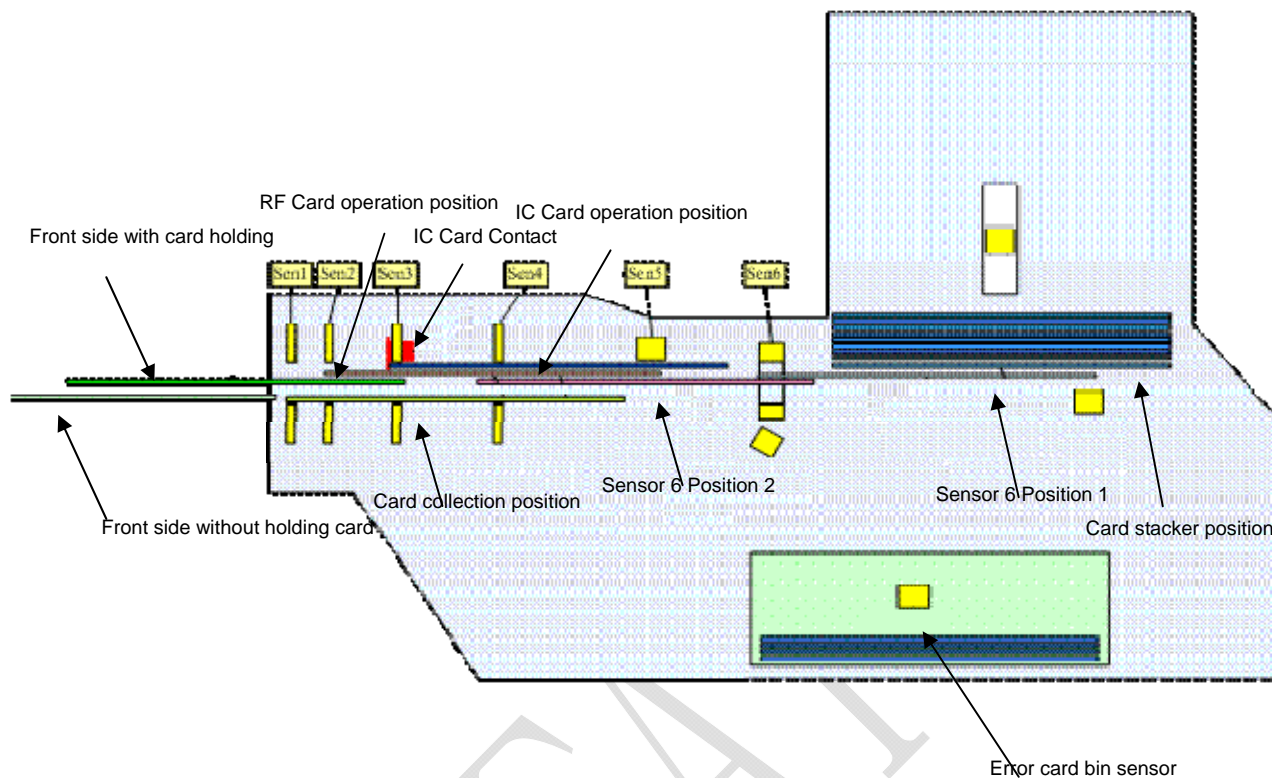| 1	棕色 (Brown)	RXD		2	TXD
2	红色 (Red)	TXD		3	RXD
3	橙色 (Orange)	GND		5	GND
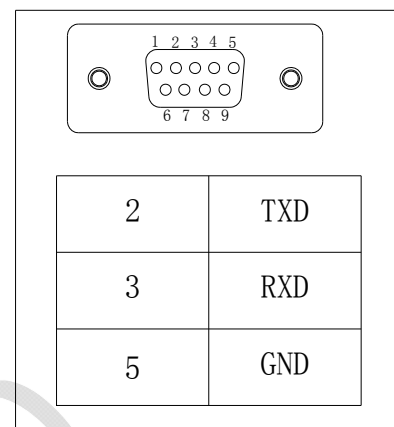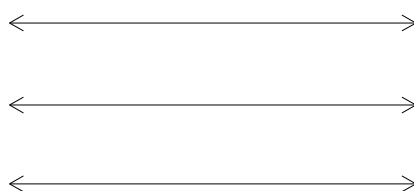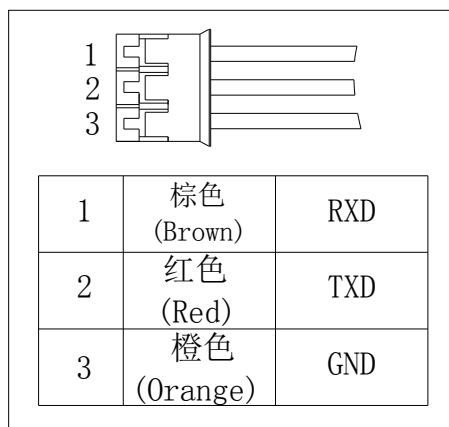
Picture 3. 3PIN serial cable and computer DP 9PIN connector cable

6、Schematic diagram of the sensor position of machine:

7、**The card stop position drawing:**

Front side with card holding
RF Card operation position
IC Card operation position
IC Card Contact
Front side without holding card
Card collection position
Sensor 6 Position 2
Sensor 6 Position 1
Card stacker position
Error card bin sensor

8、 DIP Setting Of Unit Address

Through the 4-digit DIP switch on the main board, 1 to 3 can be used to set the address of each extension： （See table 1 below）

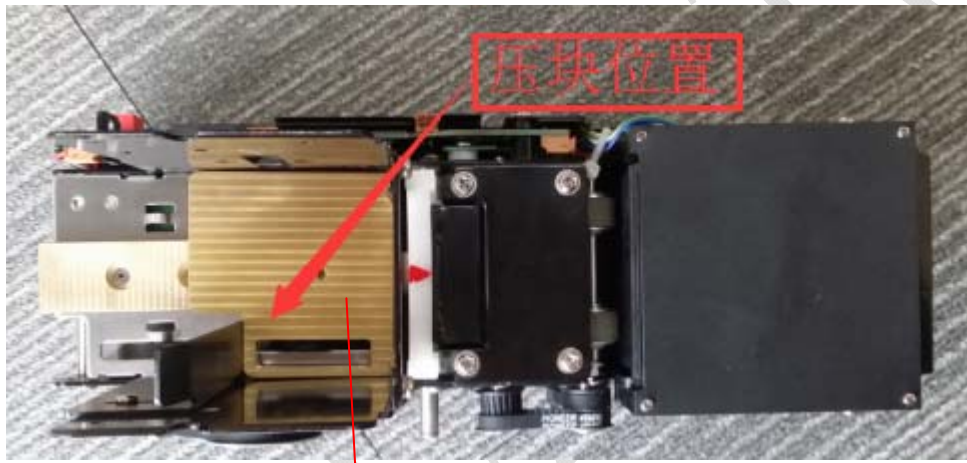| Dip switch	1	ON	OFF	ON	OFF	ON	OFF	ON	OFF
	2	ON	ON	OFF	OFF	ON	ON	OFF	OFF
	3	ON	ON	ON	ON	OFF	OFF	OFF	OFF
Address		00	01	02	03	04	05	06	07

Chart1

9、**Notice**

1）IC card position in stacker

The position of chip
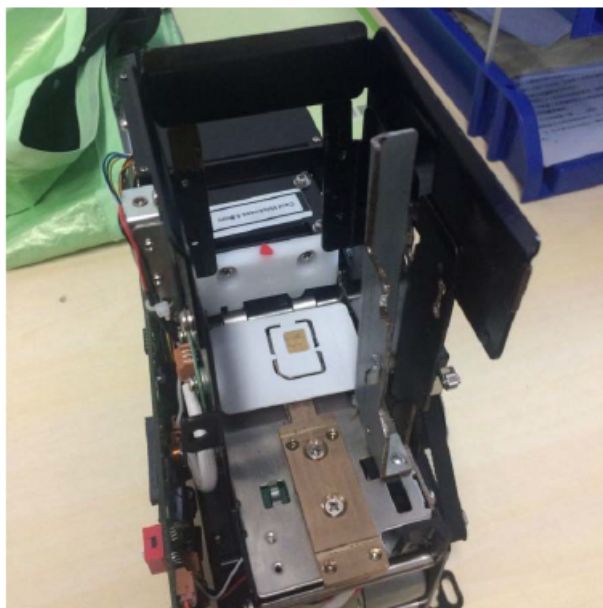

芯片位置
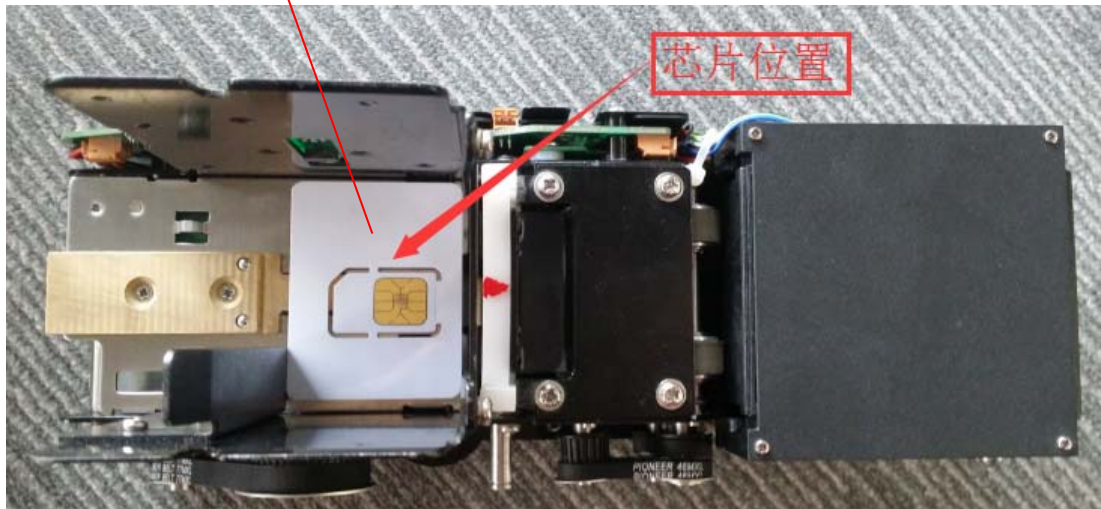
2) Iron block position in stacker

压块位置

The block placement position

2) When using, please kindly note that card thickness have been fixed, don't adjust it.

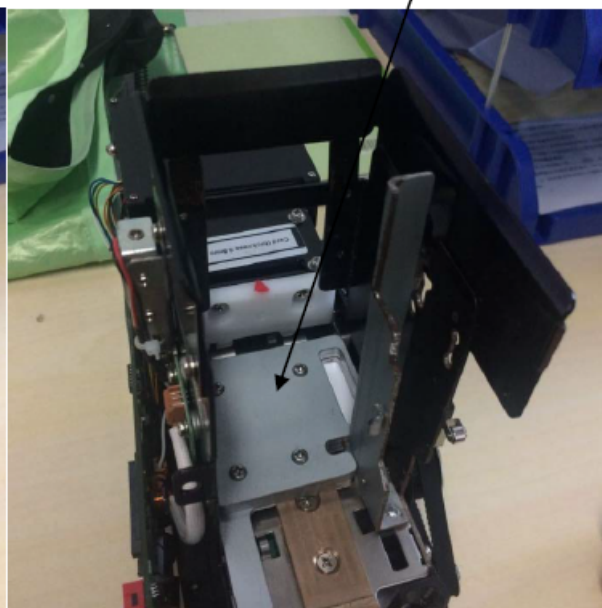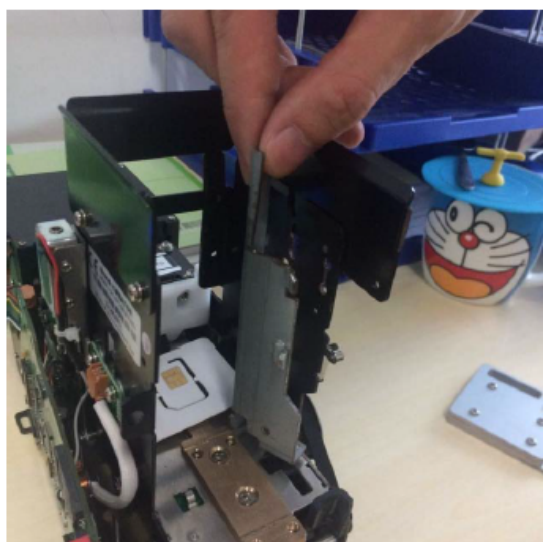3）After placing card into stacker, make sure iron block on cards

2 in 1 card dispenser adjustment

iron

1.Accept half-size card

2.Put iron on the card

3.Extend the shifting board

4.Ready to dispense full-size card

5.Put full-size card on the stacker   6.Put iron on the stacker

10、Maintenance

After a long time usage, factors such as the machine's transportation mechanism wear and tear, dust on sensor, magnetic head, IC card contact will influence the performance of the machine, and hence it should be maintained on a constant basis.

Detail maintenance instruction is as following:

① Use a cleaning card or a cloth with alcohol to clean the card dispensing mechanism and card read/write mechanism. (To open the card read/write components please refer to chapter 12"Cautious")

② Pick out greasy card and deformed card, and clean the greasy card with soft cloth tapped cleaning alcohol. If the deformed card is unable to restore, it is necessary to replace this deformed card with normal one.

③ Keep card pre-empty sensor clean by soft cloth with cleaning alcohol.

④ Sensor maintenance: Use the sensor status inquiry command to examine sensors' status. When the reader is running under good condition, all its 10 sensor groups' status are 'OFF'; If any sensor group's status is 'ON', it is possible to be covered by dust; You can try to clean the sensor, especially this sensor group.

⑤ IC card contact maintenance: Clean the IC card contact if there is any dirty on them.

⑥ Transportation roll maintenance: Transportation roll should be check regularly and clean by cleaning alcohol if there is any dirty.

11、 **Cautions**

1) Before maintenances, make sure the power connection is cut off in order to avoid machine damage.

2) Pay attention to DIP specification, wrong DIP number will bring about no work and unknown status.

3) Prohibit warm plug in and out of connector. Warm plug will cause circuit damage.

4) Keep machine non-greasy, oily cohesive will deadly influence the performance of machine.

5) Pay attention to the IC card direction in stack.

6) Pay attention to the power off sequence, cut off power first and then cut off communication cable.

7) To open/close the card read/write component

   ① Open the cover of read/write component: Push the button on the both side of machine (See picture). And make sure the button is push to the end.

   ② Pull up the cover of read/write component and clean the rubber wheel, photoelectric sensor and IC card contact.

   ③ Restore the cover of read/write component: Push the button on the both side of machine（See picture4）and pull down the cover to original place and loose your hand. Make sure the cover is in the correct place.

Picture4. To open RF/IC card component

8) Trouble shooting
   Once the card dispenser has an error such as blocking, you must use the reset command to clear the error flag before executing other commands.

12、Structural outline drawing and appendix