WIZ–M
Service Manual

Document History

REV	DESCRIPTION	Date	Writer	Remarks

The Contents

1. Spec

1.1 Common Spec

Contents	Spec	Remarks
Access Type	Front	
Dispensing Speed	About 4Notes/sec	
Notes Size	Width : 120~170㎜ Vertical : 63~80㎜ Thickness : 0.07~0.18㎜	
Denomination Quantity	MAX 3 Cassette	
Cassette Capacity	1,000Notes	
Cassette Key	None	Option
Reject Method	Note by note Method	Reject Bin
Reject Capacity	50Notes	
Reject Bin Key	None	Option
Near End Check	30~70Notes	
SIZE W * D * H (mm)	1Cassette : 288*185*316 2Cassette : 288*185*501	Front Type
Power		
	+24V (3.5A, PEAK 4.0A)	24V Conversion
Weight	WIZ-M1 : 11 ㎏ WIZ-M2 : 17 ㎏ WIZ-M3 : 23 ㎏	Included Cassette
	SHUTTER 2㎏, DUMP SHUTTER 3.7㎏	Option
Communication	RS-232C	

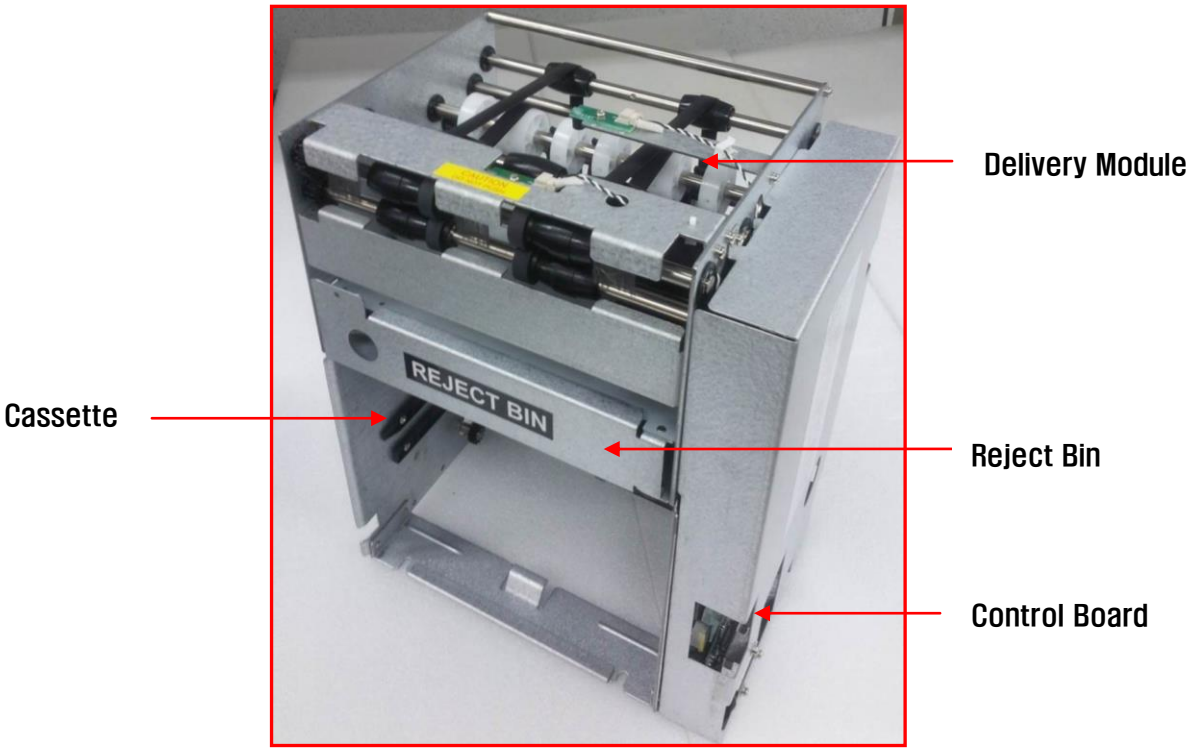
1.2 The environment for use

Feature		Specifications	Remark
Temperature	Moving	5℃ ~ 35℃	
	Storage	-5℃ ~ 45℃	
Humidity	Moving	35% ~ 85%	
	Storage	10% ~ 90%	

1.3 The Instrument Organization

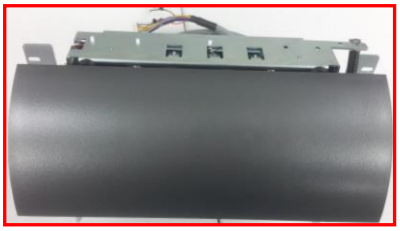
1.3.1 WIZ-M(S)(DS)

- Delivery Module
- Cassette
- Control Board
- Separation Shutter or Dump Shutter (Option)

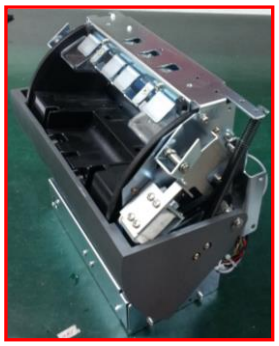


<1 Cassette Type>

< Cassette >



< Shutter >



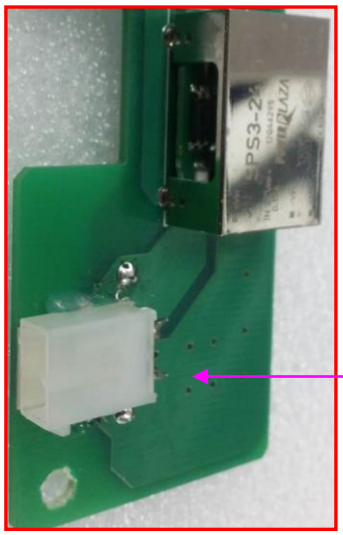
< Dump Shutter >

2. An Use

2.1 The Outside Connection & Cable Connection

2.1.1 Power Cable

- Connecting the power cable with the power connector.



<Converter B/D Connector>

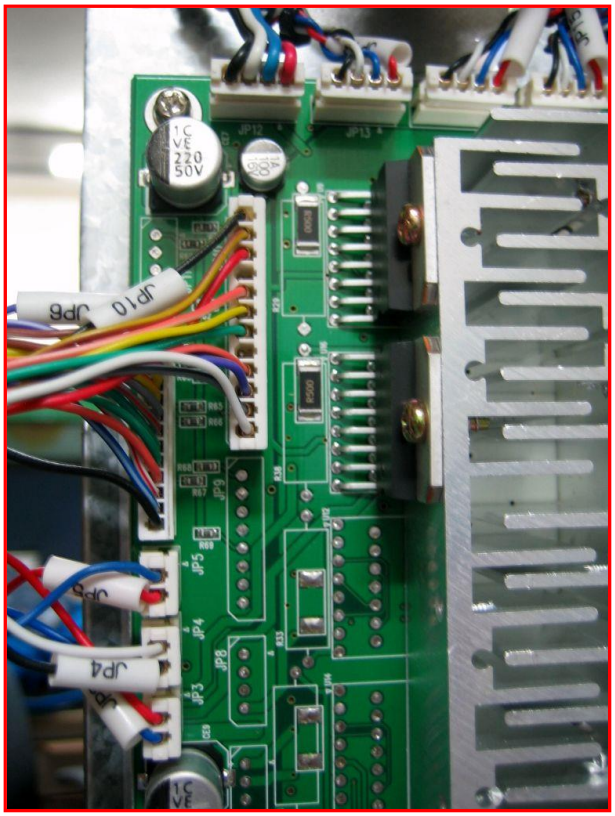
2.1.2 Interface Cable

- Connecting the 232 interface connect cable with the Main Board Interface Port.
- Connecting the 232 Interface Connect Cable Port with 232 interface cable.

< 232 Interface Connect Cable >

2.1.3 SHUTTER CABLE

- Connecting 3 kinds of Shutter Cable with JP6, JP5, JP4 according to the label.
  [JP10, JP3 = Dump Shutter]



<Caution> When you will Connect the shutter cable, checking whether the power is off.

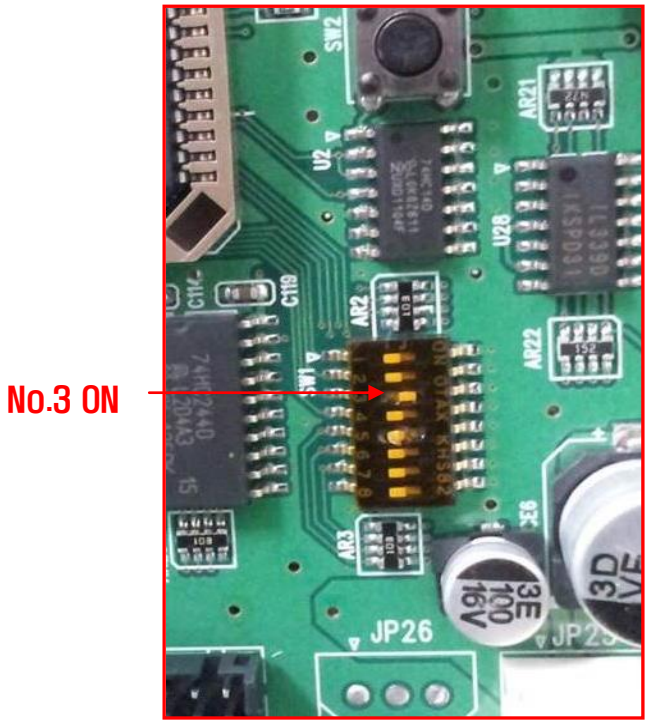
2.2 Main Board DIP Switch

2.2.1 DIP S/W Setting

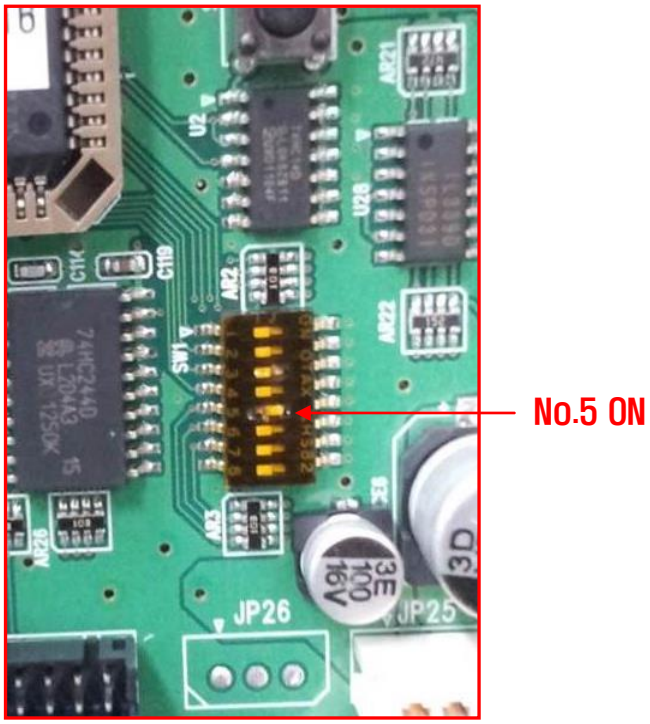
1	2	3	4	5	6	7	8	Function
☆	☆	–	–	–	–	–	–	The cassette 1st floor (basic model)
★	☆	–	–	–	–	–	–	The cassette 2nd floor model
☆	★	–	–	–	–	–	–	The cassette 3rd floor model
–	–	★	–	–	–	–	–	The mode which there is no a transmission among a Sensor-Response communication
–	–	–	–	★	–	–	–	The test program mode of PULOON.
–	–	–	–	–	–	★	★	The compulsion download mode setting

(★: Dip switch on, ☆: Dip switch off, – : Ignore)

2.2.2 The dip switch setting WIZ Mode and PULOON Mode



< WIZ Mode >



< PULOON Mode >

2.3 The cassette ID setting and currency size setting

2.3.1 Cassette ID setting

ID	Cassette	Shape	ID Sensor	Currency
1	● ○			50 RUB
2	○ ●			100 RUB
3	● ●			500 RUB OR 1000 RUB

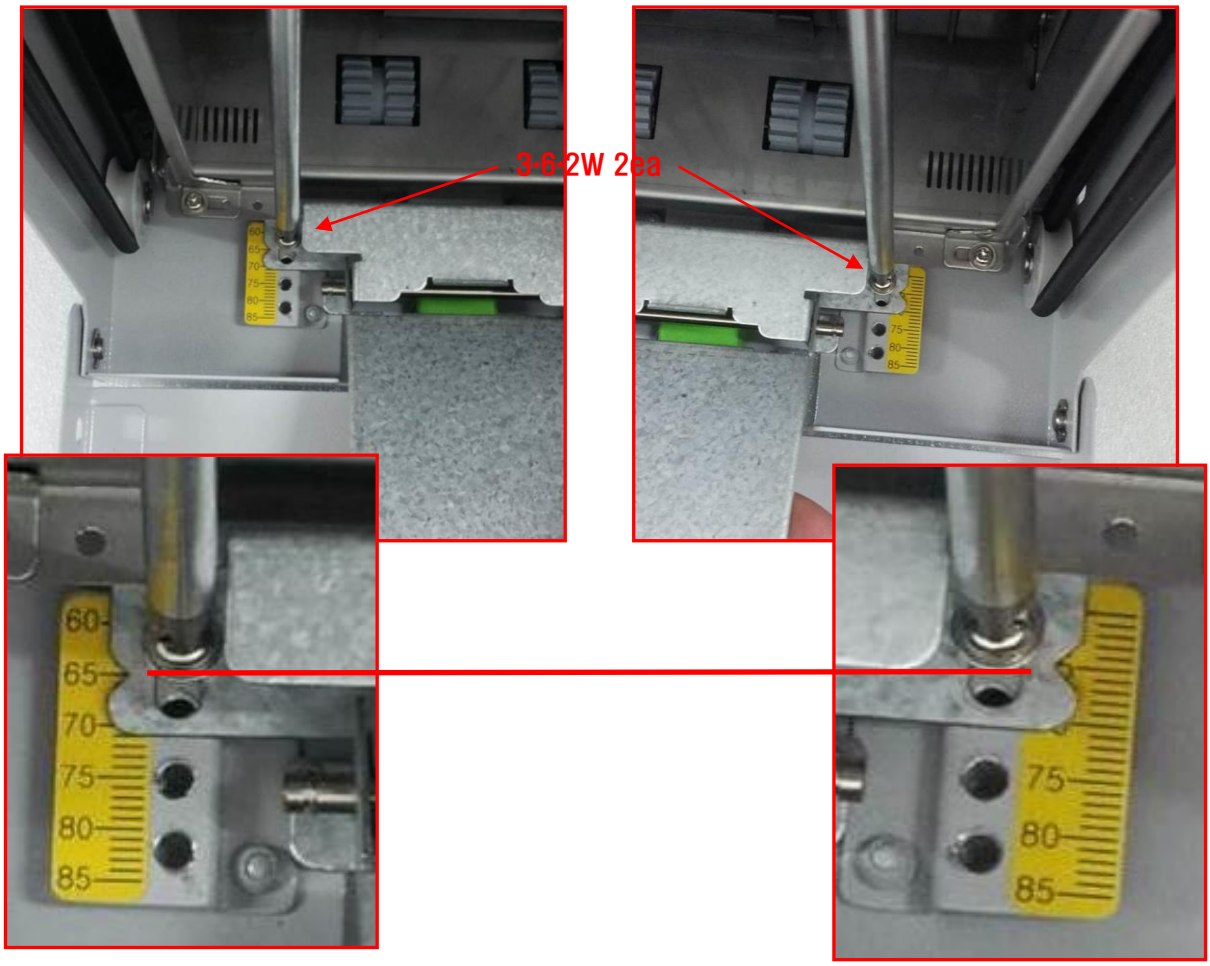
※ ⊗ : The switch presses down

2.3.2 The size setting of the currency

ID	Denomination	Currency size(mm)		Up Bill Guide	Side Bill Guide	
		Length	Height		Left	Right
1	50 RUB	150	65	65	7	8
2	100 RUB	150	65	65	7	8
3	500 RUB	150	65	65	7	8
3	1000 RUB	158	69	69	9	9

2.3.3 Up Bill Guide Adjustment

- Fixing the Up Bill Guide Home on the label number like the currency size.



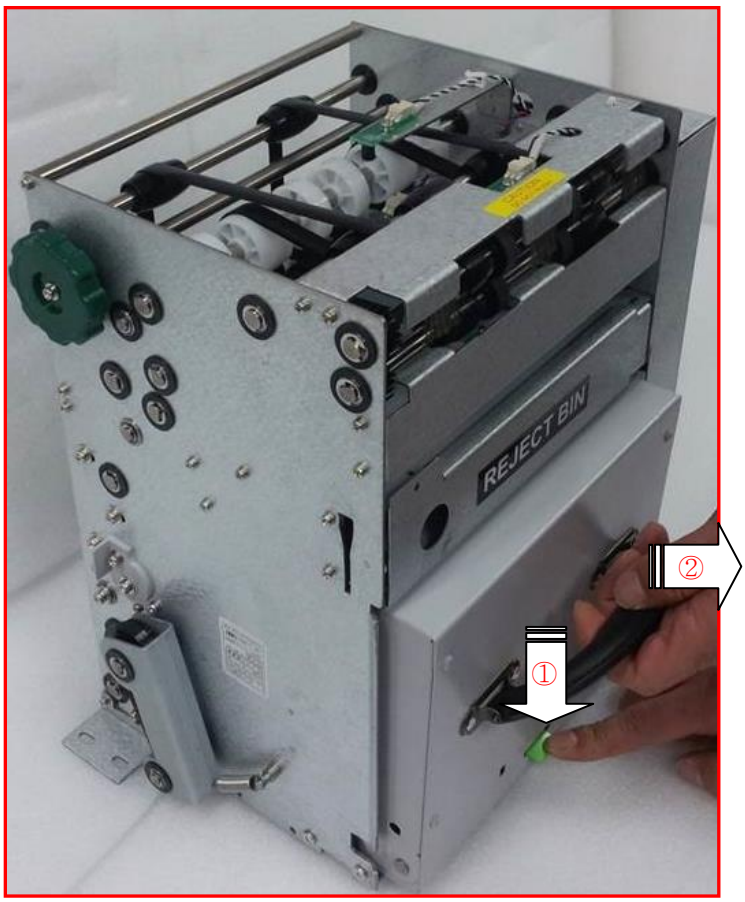
〈Left〉 〈Right〉

2.3.4 Side Bill Guide Adjustment

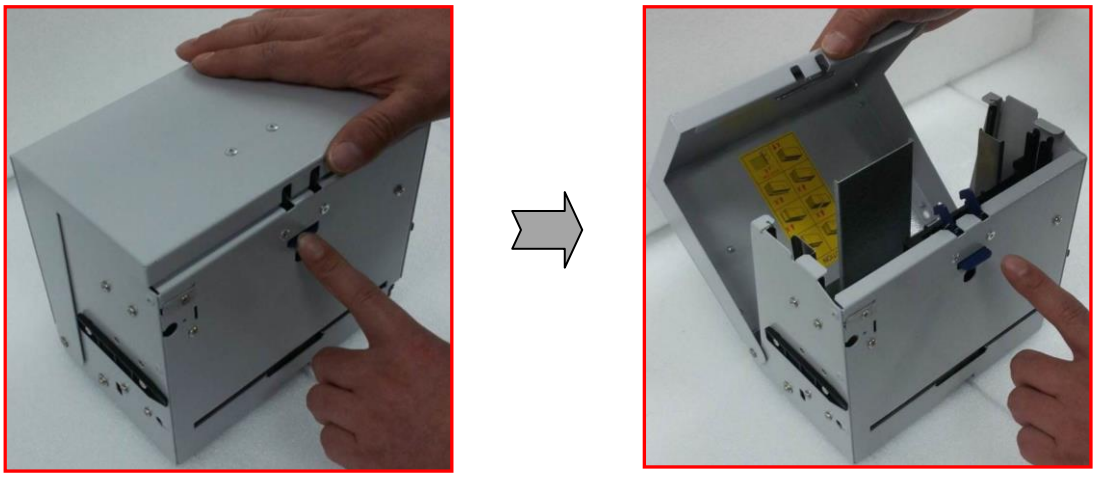
- Putting the Side Bill Guide in the Side Bill adjust hole by the currency size.
- The quantity of the Side Bill adjustment Hole counts in an inside by an outside.

2.4 The cassette insert and exchange

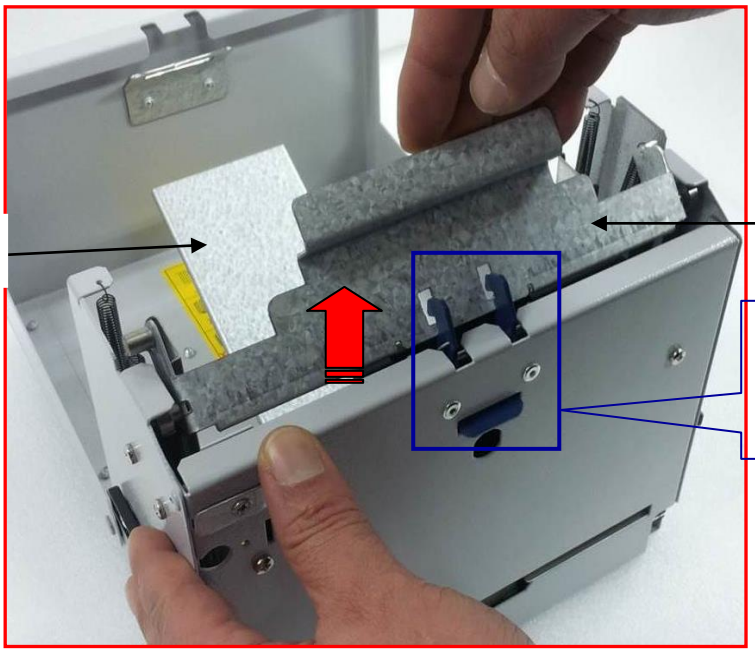
2.4.1 While pressing the locking lever (green) of the cassette, pulling the handle of the cassette In the front.



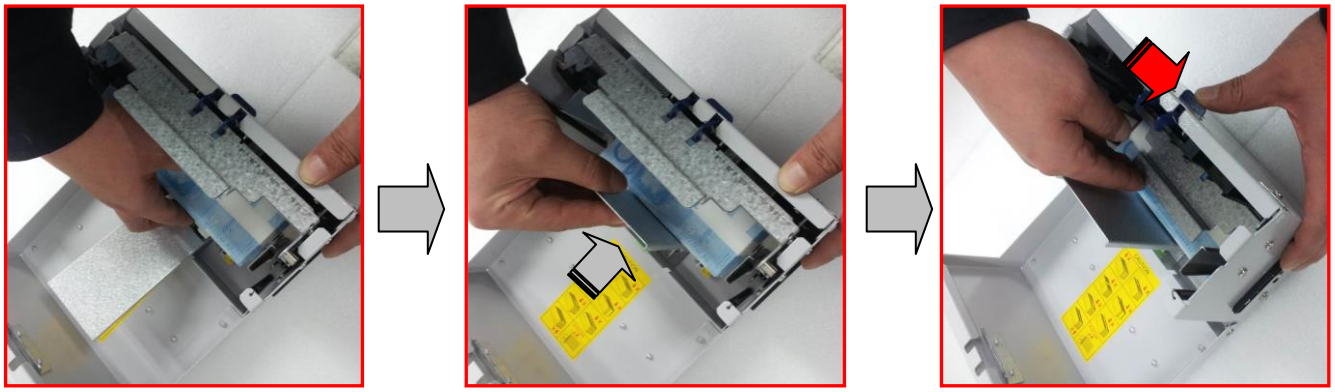
2.4.2 Pressing the locking lever and lift the cover of the cassette.



2.4.3 Please pulling, after laying the Up Bill Guide down, until it becomes Push Plate with a locking.



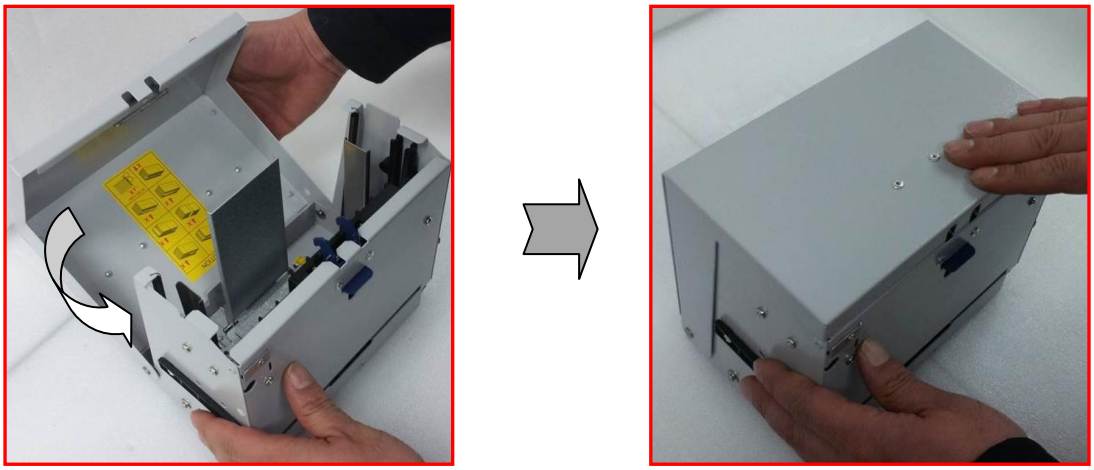
2.4.4 After setting a currency neatly pressing the locking lever. Until an accuracy becomes a setting the Push Plate, the currency adheres below closely blandly and standing the Bill up Guide.



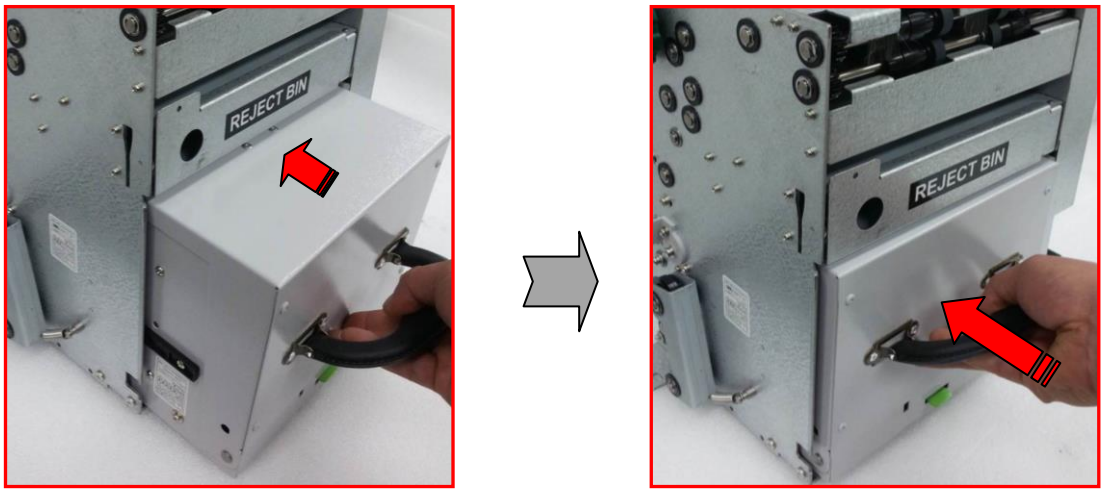
<The currency installation> <Standing the Up Bill> <Getting off the Push Plate>

※ Be careful about the currency arrangement when pressing the push plate.

2.4.5 Closing the lid of the cassette and check whether the cassette was properly locked.



2.4.6 It pushes a cassette until it is completely equipped in lock of delivery module.

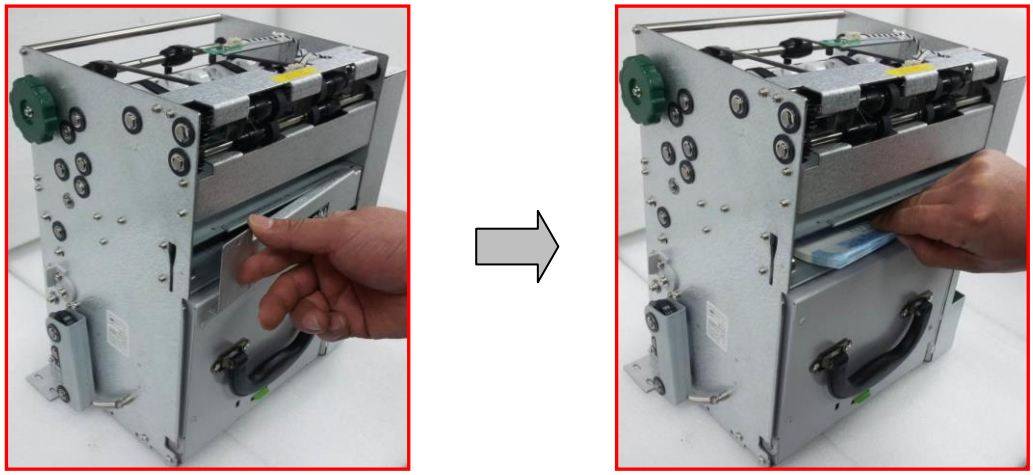


2.5 The Rejected Currency Removal

2.5.1 Catching the reject bin handle and open the reject bin door.

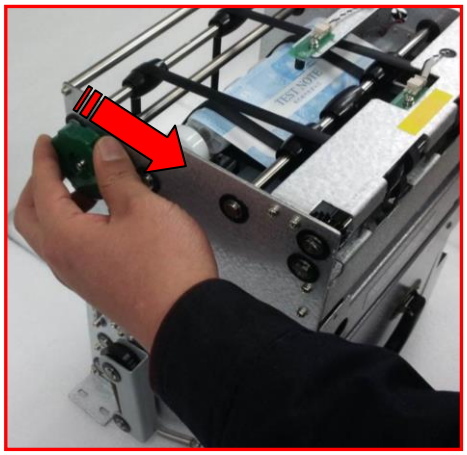
2.5.2 Taking out rejected currency (abnormal or double note) in the reject bin.

2.5.3 Pushing the reject bin handle and close the reject bin door.



2.6 The Currency Removal in the Feed Path

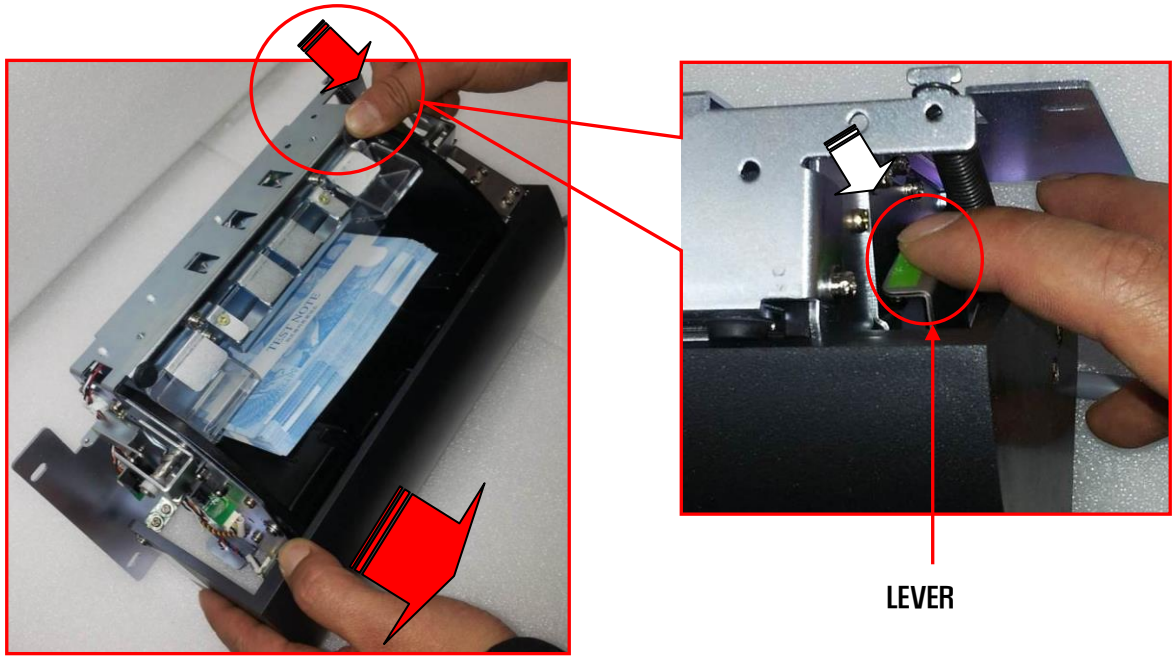
2.6.1 In case of stopping due to the motion which the currency error is strange, the currency gets to remain between the belt.
In order to restart the machine then, you must removing the currency.
You rotate a knob under this case and can remove the currency.
After above work is completed, restarting the machine.



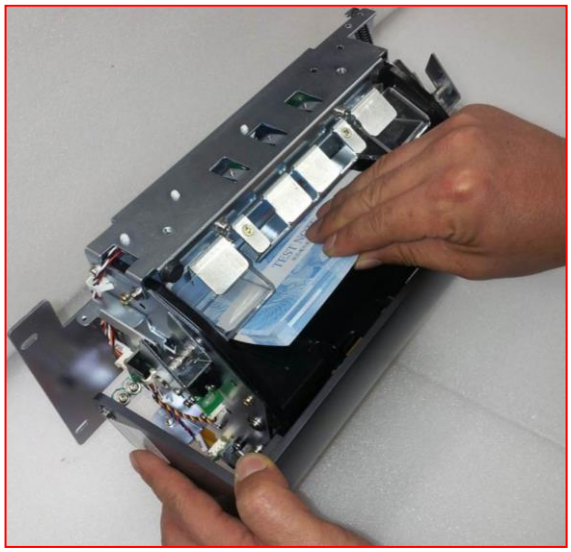
<Caution> When removing the currency in the delivery module, checking the power off

2.7 The Currency Removal in The Shutter

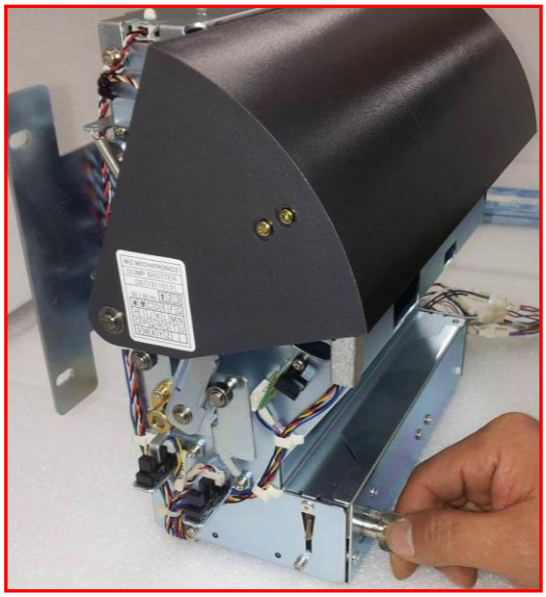
2.7.1 When there is a currency in the shutter, pressing a lever under and you can open the shutter cover.



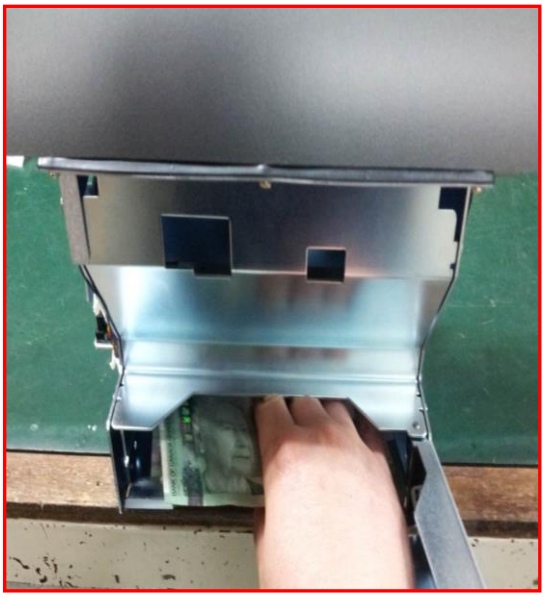
2.7.2 Taking out the currency after fixing the shutter cover.



2.7.3 When a currency is in a dump box, taking out a currency along with the below.



< Opening the dump box door with the key >



< Removing the currency >

2.8. The GBM Situation checking method

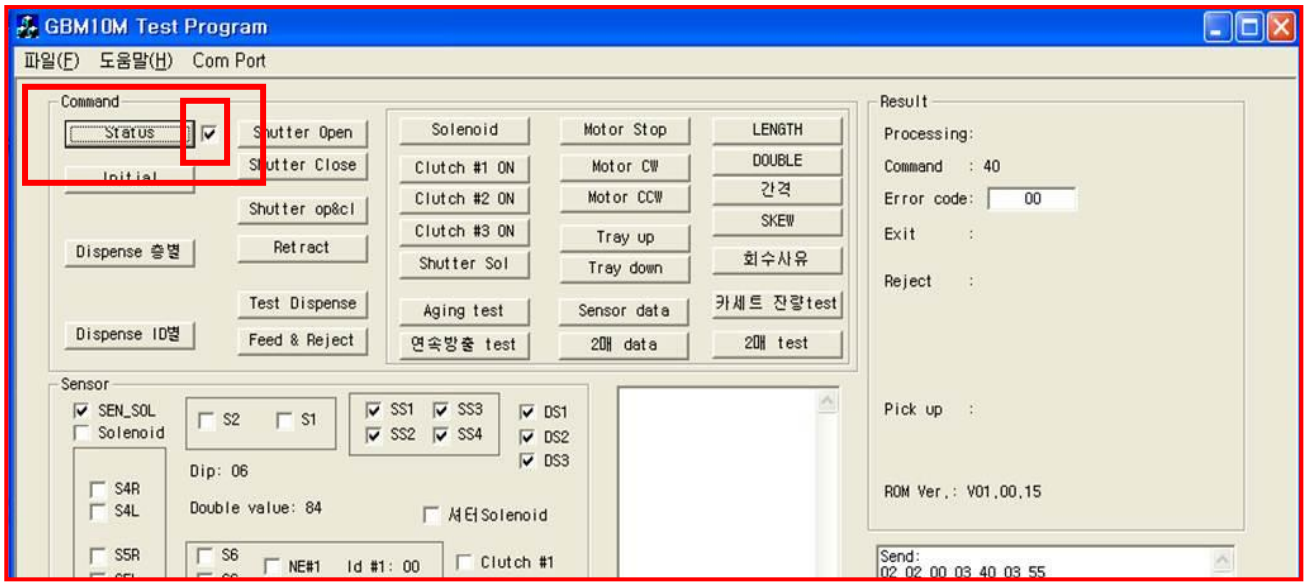
- By using the LED and 7-Segment, you can diagnose WIZ-M' s state simply.
- Figure indicated on a 7-Segment and judge the error condition.
  ("0.0" indication is the normal state)
- The digit present of the 7-Segment shows the two-digit number
  and "." Sticks to the front number.
- You can confirm the ROM version of the mainboard under.

< 7-Segments >

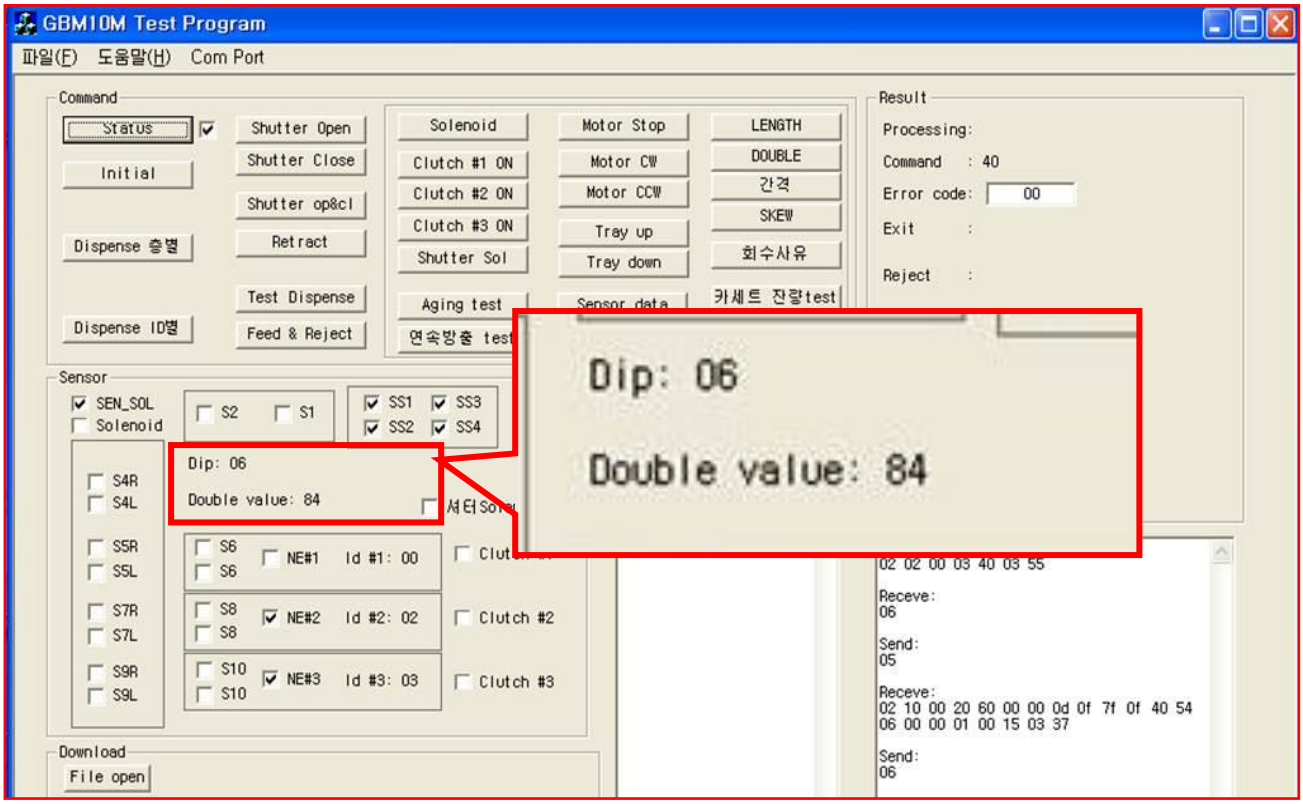
<ROM version>

2.9 The Currency Double Value checking method

1) WIZ-M Test Program using (★Caution : DIP Switch No5 is off) :
Status Using : Practice the status after square blank check.

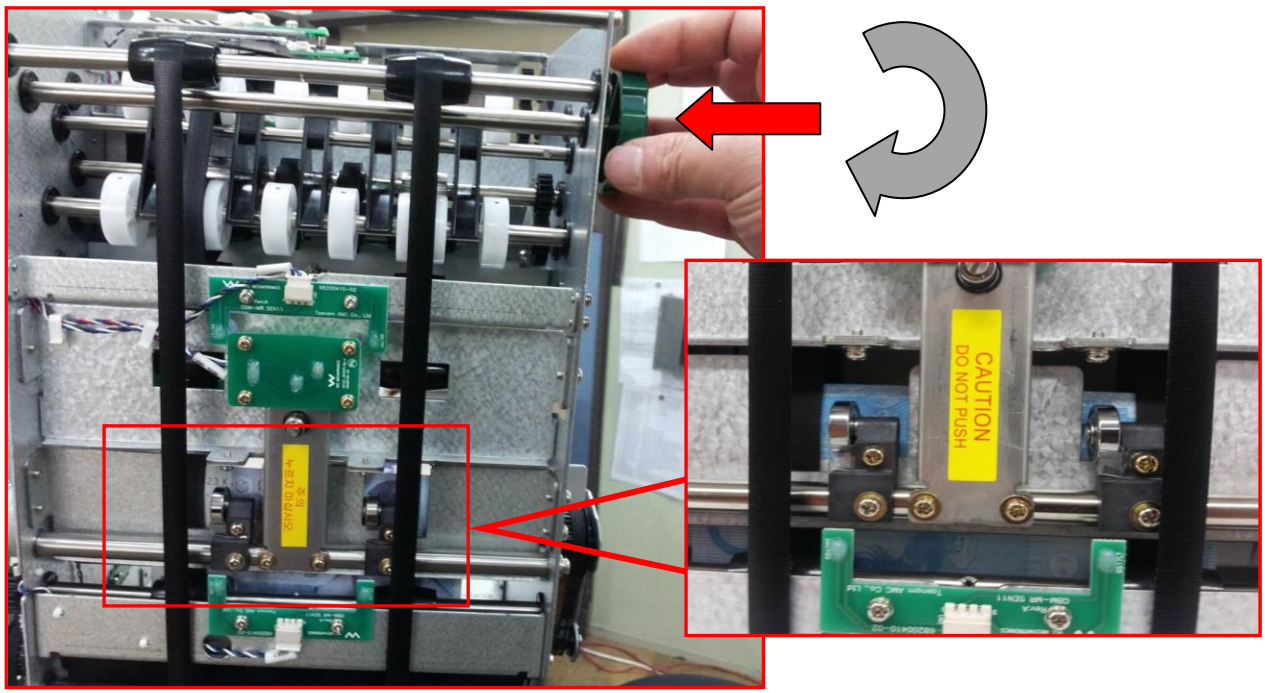


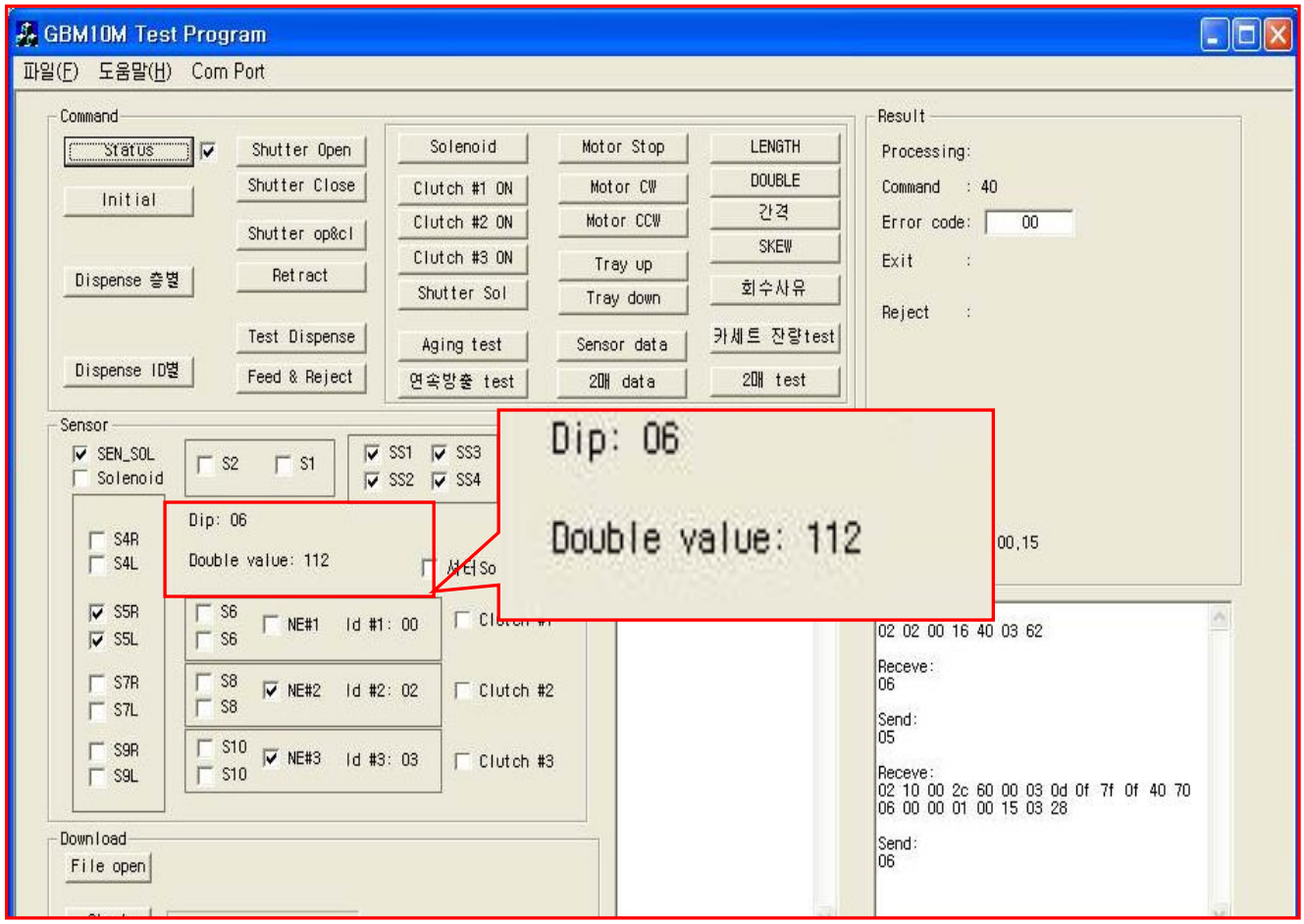
2) Checking the initial value of the double value.
: The double-value confirmation of the initial condition (There is no currency)
➔ Double value : 84



3) Checking the double value of the currency.

: Confirm the double-value rotating around the Knob and putting a currency between the Double Contact Roller.

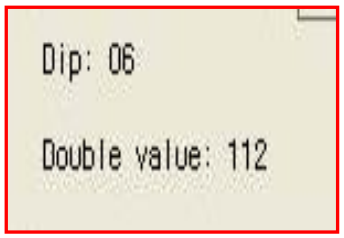
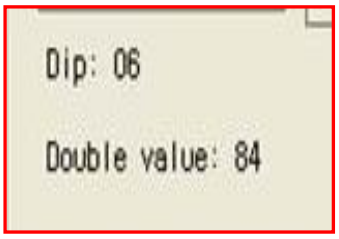




4) Checking the double-value of the 1note(currency)

: Double-value of the currency – Initial Double value = Double -value of the 1note.

(25 < Double-value of the 1note > 65)

Double value of the currency		Initial value	Double value of the 1 note
112 	–	84 	28

5) The error code according to the double-value of the 1note.

The double-value of the 1note is lower than a standard		The double-value of the 1note is higher than a standard	
Error Code	Explanation	Error Code	Explanation
2C	The double-value of the 1note is less than 25.	30	The rejected currency is 10notes over per 1 transection.

6) The administration standard

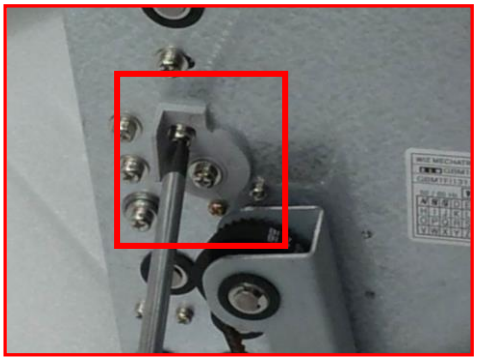
ROM Setting Value	The management value of WIZ
25 < The double-value of the 1note > 65	33 < The double-value of the 1note > 45

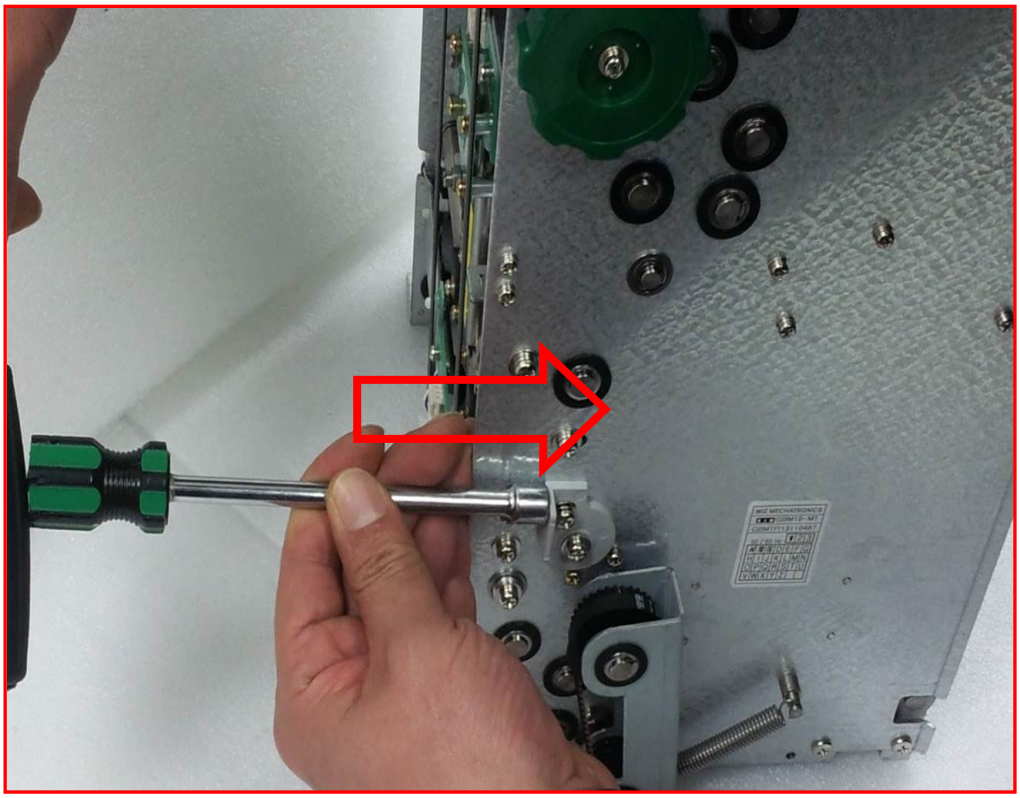
※ There are read double-value and difference among the currency dispensing.

2.10 The Currency Double Value Adjustment

1) The double-value 1note is lower than standard.
(The board opposite side is low in an double-value than the board side)

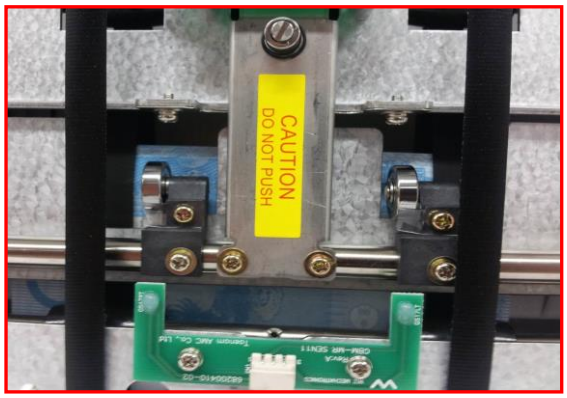
① After releasing the screw of a double shaft lever, adjusting a lever to the cassette slot side.
(Insufficiently moving to 0.1mm)



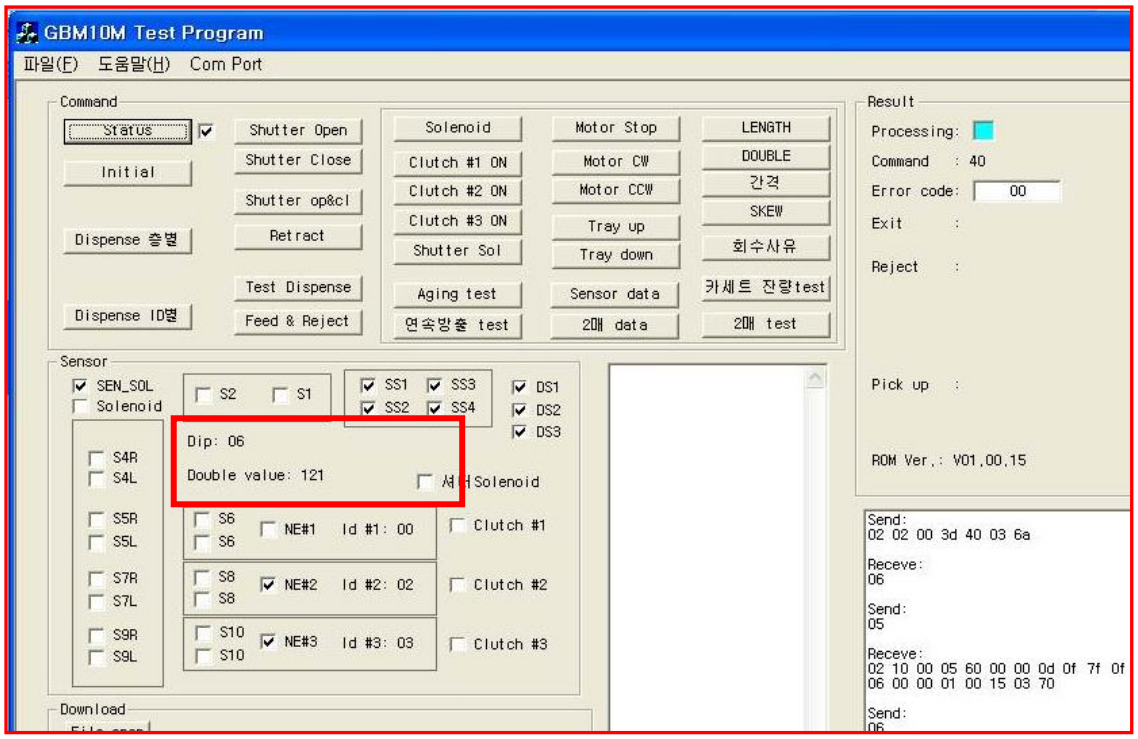


The cassette slot

② Checking the double-value of the 1note



Locating the currency between the Double Contact Roller.



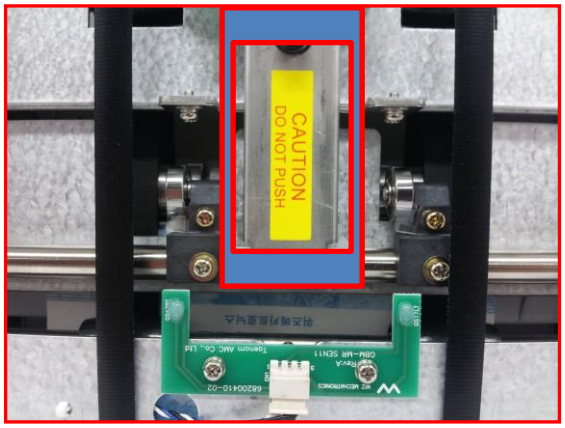
③ The double-value of the 1note

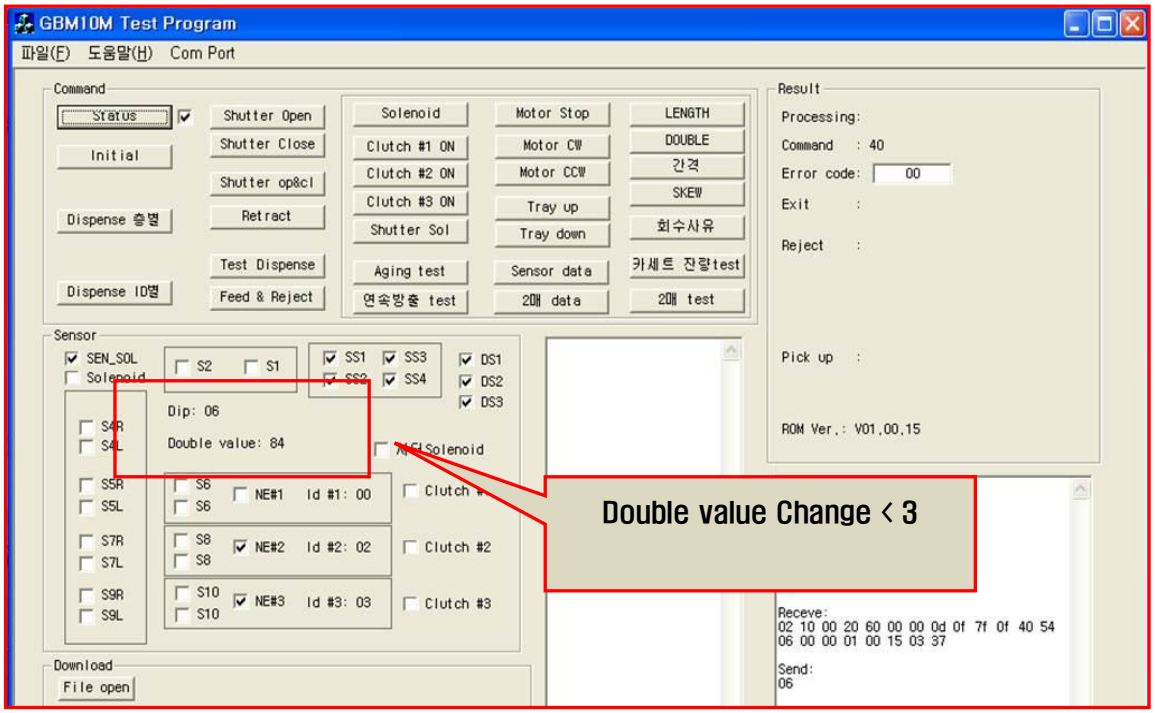
The double-value of the currency		Initial Double value	The double-value of the 1note
121 Dip: 06 Double value: 121	–	84 Dip: 06 Double value: 84	37

④ A Caution

➔ One in which when pressing the indication part with the hand, the shift of the double-value is smaller than 3.

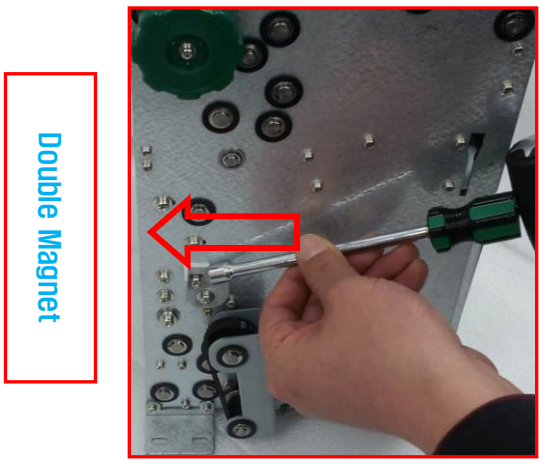
(2C or 30 Error is happened)



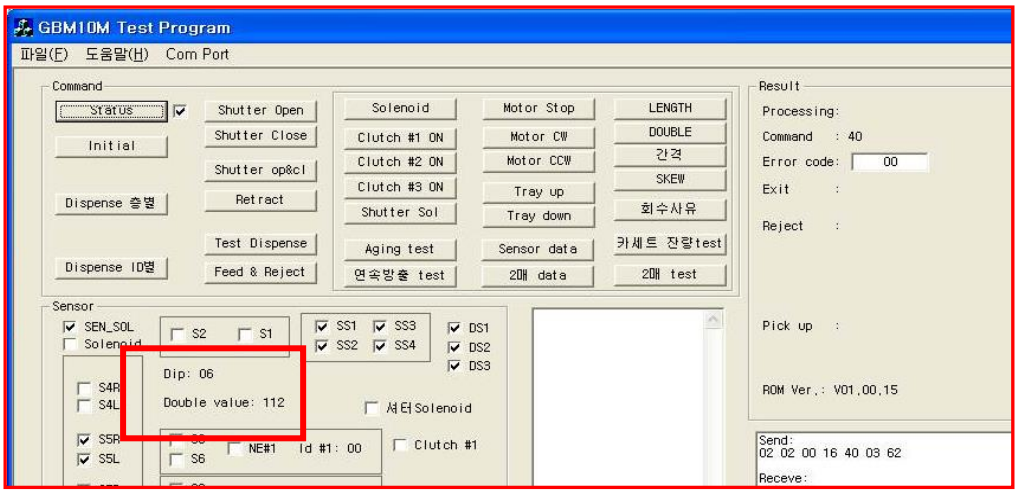


2) The double-value 1note is higher than standard.

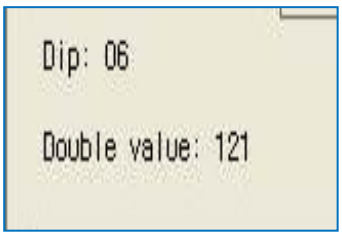
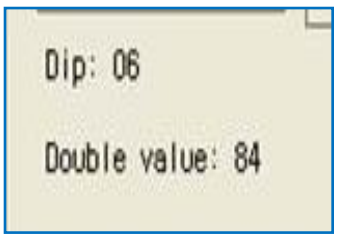
① After releasing screw of double shaft lever , adjusting a lever towards a double magnet. (Insufficiently moving to 0.1mm)



② Checking The double-value of the 1note



③ The double-value of the 1note

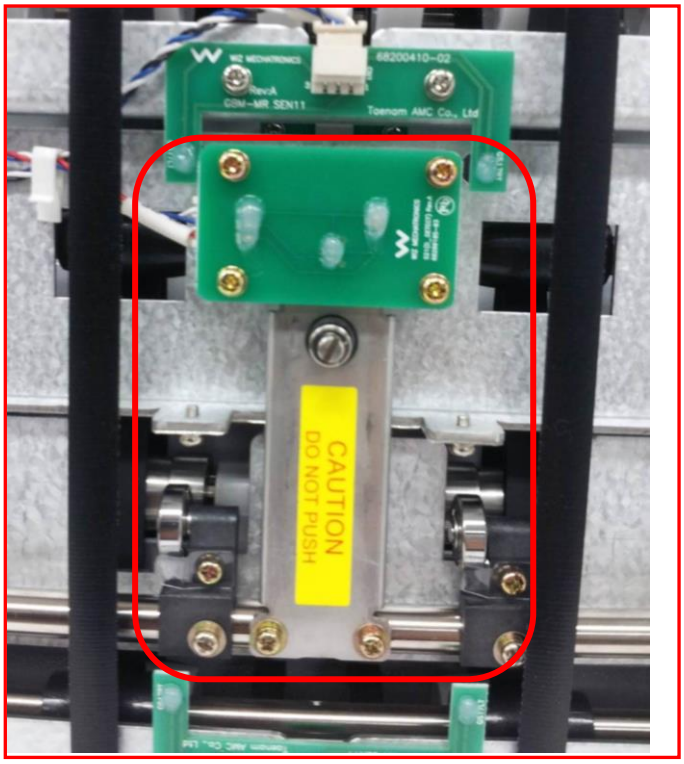
The double-value of the currency		Initial Double value	The double-value of the 1note
112  	–	84  	28

④ A Caution

➔ 2C Error is happened : The double-value of the 1note is lower than a standard.

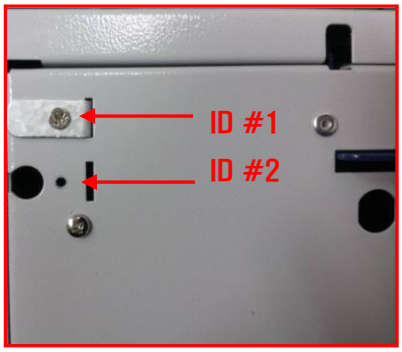
2.11 A Caution

-. Damage the label part or don’ t adjust double-value part arbitrarily.
Double-value part error can happen in a case like this.



-. The control of cassette ID the attention because there is a connection with cash accident.

< ID Control example >



Ex) Type 1: 50RUB

Currency TYPE	ID #1	ID #2	Denomination
Type 1	●	○	50 RUB
Type 2	○	●	100 RUB
Type 3	●	●	500 RUB or 1000 RUB

3. The Error content and Measures

3.1 The Error content and Measures.

Code	Content	Cause	Measures
00	Normal moving.	There is no error.	There is no error.
07	The initial of the double Value error.	1. Double value cable state badness 2. Double value sensor error	1. Double value sensor change or cable status check.
11	Cassette#1 Pick Error. (In case of Near_end checking)	1. The installation state badness of the currency of the inside of the CST 2. The alien substance joins the currency separate unit of the inside of the CST. 3. The alien substance asks the pick up roller wear precision stone. 4. The Push_Plate flow badness. 5. The rubber roller badness of the delivery module entrance. 6. Near_end sensor badness or the magnet location badness. 7. 24V voltage is low. 8. The interference of the cover and clutch.	– Currency pick up error – 1. Setting a currency again, or remove the alien substance. 2. Clearing the cassette pick up rubber or replace. 3. Improving the flow the Push_Plate 4. The rubber roller change of the currency inlet part of the delivery module. 5. Checking the 24V voltage. 6. The interference removal of the clutch. – Near_end Sensor badness – 1. One to do the currency more than near-end checking quantity a charging. (About over 100 shets) 2. Changing the Near_end sensor or the magnet location control.
12	Cassette#2 Pick Error. (In case of Near_end checking)		
13	Cassette#3 Pick Error. (In case of Near_end checking)		
15	Cassette#1 Pick Error. (In case of Near_end no checking)	1. The installation state badness of the currency of the inside of the CST 2. The alien substance joins the currency separate unit of the inside of the CST.	– Currency pick up error – 1. Setting a currency again, or remove the alien substance. 2. Clearing the cassette pick up rubber or replace.
16	Cassette#2 Pick Error. (In case of Near_end no checking)		

17	Cassette#3 Pick Error. (In case of Near_end no checking)	3. The alien substance asks the pick up roller wear precision stone. 4. The Push_Plate flow badness. 5. The rubber roller badness of the delivery module entrance. 6. Near_end sensor badness or the magnet location badness. 7. The 24V voltage is low. 8. The interference of the cover and clutch.	3. Improving the flow the Push_Plate 4. The rubber roller change of the currency inlet part of the delivery module. 5. Checking the 24V voltage 6. The interference removal of the clutch. – Near_end Sensor badness – 1. Changing the Near_end sensor or cable 2. Changing the magnet or the magnet location control.
1A	The currency lift cropper of S1 sensor.	1. S1~S5 Sensor badness. – power badness : the emitting sensor – other : the Receiving sensor 2. The cable state badness of the S1~S5 sensor. 3. The remaining currency and alien substance perception. 4. The secession perception of the feed belt. 5. The 24V voltage is low.	1. Changing the S1~S5 sensor.. 2. Checking the cable of the S1~S5 sensor. 3. Removing the remaining currency and alien substance. 4. Assembling the feed belt again. 5. Checking the 5V voltage.
1B	The currency lift cropper of S2 sensor.		
1C	The currency lift cropper of S4 sensor.		
1D	The currency lift cropper of S5 sensor.		
1E	The currency lift cropper of S7 sensor.	1. Dip switch setting of denomination setting and denomination is not right. 2. The connection cable conclusion badness of Feed Module 3. S7 sensor badness. 4. The status of sensor cable is badness. 5. The remaining currency and alien substance perception. 6. The secession perception of the feed belt. 7. The 5V voltage is low.	1. The DIP switch setting. 1Denomination : #3 ON 2Denomination : #1.,#3 ON 3Denomination : #2, #3 ON 2. Changing the S1~S5 sensor. 3. Checking the cable status of the S1~S5 sensor. 4. Removing the remaining currency and alien substance. 5. Assembling the feed belt again 6. Checking the 5V voltage.
1F	The currency lift cropper of S9 sensor.		

21	The currency jam happens in the section of S6~S5 sensor.	1. When a perception is in trouble, the currency which passes S6 sensor since currency jam and belt are taken off, happens in the S5 sensor. 2. A perception is in trouble in the S5 sensor with the infrared rays interference.	1. Removing the currency jam.. 2. Reassembling the feed belt 3. Blocking the interference of the infrared rays at S1, S2, S4, S5, S7, S9 sensors. 4. Checking the contact point condition of the cable.
22	The currency jam happens in the section of S8~S7 sensor.	1. When a perception is in trouble, the currency which passes S8 sensor since currency jam and belt are taken off, happens in the S7 sensor. 2. A perception is in trouble in the S7 sensor with the infrared rays interference.	
23	The currency jam happens in the section of S10~S9 sensor.	1. When a perception is in trouble, the currency which passes S10 sensor since currency jam and belt are taken off, happens in the S9 sensor. 2. A perception is in trouble in the S9 sensor with the infrared rays interference.	
24	The currency jam happens in the section of S5~S4 sensor.	1. When a perception is in trouble, the currency which passes S5 sensor since currency jam and belt are taken off, happens in the S4 sensor. 2. A perception is in trouble in the S4 sensor with the infrared rays interference.	

25	The currency jam happens in the section of S4~S2 sensor.	1. When a perception is in trouble, the currency which passes S4 sensor since currency jam and belt are taken off, happens in the S2 sensor. 2. A perception is in trouble in the S2 sensor with the infrared rays interference.	
26	The currency jam happens in the section of S2~S1 sensor.	1. When a perception is in trouble, the currency which passes S2 sensor since currency jam and belt are taken off, happens in the S1 sensor. 2. A perception is in trouble in the S1 sensor with the infrared rays interference.	
27	The count of final dispensing error.	1. S1 and S2 sensor perception cropper. 2. The perception quantity of S1 and S2 sensor is different as the badness of the currency. 3. A perception is in trouble in the S1 and S2 sensor with the infrared rays interference. 4. ROM is badness.	1. Checking the currency status. ➔ Being torn and HOLE 2. The infrared rays interception. 3. Changing the ROM
28	The currency perception which is strange on the feed path.	1. One place is sensed among the L, R sensor of the S6, S8, S10 sensor. 2. The currency passing the S6, S8, S10 sensor, only one place is sensed among the L, R sensor of the S5, S7, S9 sensor. 3. One place happens among the L, R sensors when being always on or the off.	1. Checking the currency status. ➔ Being torn and HOLE 2. Checking the contact point condition of the cable. 3. The infrared rays interception.
2A	The rejected currency is normally dispensed.	1. The operation of the gate is bad. 2. The ROM is bad.	1. Checking the gate' s operation. 2. Changing the ROM.

2B	The operation of the solenoid is bad.	1. The solenoid is bad. 2. The sensor of the solenoid is bad. ➔ The lift cropper of the sensor. 3. The currency jam happens in the gate.	1. Proceeding with the independence test of solenoid in the test program. Being operated : There is no problem in the solenoid and sensor. An operation is strange : The sensor is bad. Not operating : The solenoid is bad. 2. Managing so that the gate can open. 3. Testing after removing a currency.
2C	The double-value of the 1note is the standard or less.	-. The currency passing double detect is lower than the standard value. ➔ In the test program The currency perception value –Initial status value < 25	-. Adjusting with The currency perception value – Initial status value > 25
2D	The Solenoid is ON.	1. The solenoid is bad. 2. The sensor of the solenoid is bad. ➔ The perception cropper of the sensor.. 3. There is the currency jam in the gate.	1. In the test program, Proceeding with the independence test of solenoid Being operated : There is no problem in the solenoid and sensor. An operation is strange : The sensor is bad. Not operating : The solenoid is bad. 2. Managing so that the gate can open. 3. Testing after removing a currency.

2E	The currency jam happens in the section of S7~S5 sensor.	1. When a perception is in trouble, the currency which passes S7 sensor since currency jam and belt are taken off, happens in the S5 sensor. 2. A perception is in trouble in the S5 sensor with the infrared rays interference.	1. Removing the currency jam.. 2. Assembling the return feed belt again. 3. Blocking the interference of the infrared rays at S5 sensor. 4. Checking the contact point condition of the cable.
2F	The currency jam happens in the section of S9~S7 sensor.	1. When a perception is in trouble, the currency which passes S9 sensor since currency jam and belt are taken off, happens in the S7 sensor. 2. A perception is in trouble in the S7 sensor with the infrared rays interference.	1. Removing the currency jam.. 2. Assembling the return feed belt again. 3. Blocking the interference of the infrared rays at S7 sensor. 4. Checking the contact point condition of the cable.
30	The rejected currency happens over 10 sheets per 1 transection.	1. The case where the sensing value on bill is 65 or greater is generated in the double detector over 10times. 2. The abnormal occurrence 10 times where skew value is 10 or greater. 3. When the badness currency is dispensed over 10 sheets.	1. Adjusting with The currency perception value – Initial status value > 25 2. Readjusting the flow of the push plate in the cassette. 3. Readjusting overlap of the separated roller. 4 Removing the bad currency.
31	There is currency jam in the S6 sensor.	1. The S6, S8, S10 sensors are bad. – Power is bad : emitted sensor. – Remain : Receive sensor 2. The S6, S8, S10 sensor cables state badness. 3. The perception badness because of the bill and alien substance. 4. The feed belt is taken off. 5. The 5V voltage is low.	1. Changing the S6,S8,S10 sensors. 2. Checking The S6,S8,S10 sensor' s cable 3. Removing the bill and alien substance. 4. Reassembling the feed belt. 5. Checking the 5V voltage.
32	There is currency jam in the S8 sensor.		
33	There is currency jam in the S10 sensor.		

38	The shutter open cropper	1. SS4 sensor perception cropper 2. Shutter solenoid moving cropper 3. Shutter motor moving(MOT1) cropper 4 SS2 sensor perception cropper 5. The cable contact state badness 6. It interferes when operating like a shutter cover	1. Confirm in the shutter open operational order 1) Shutter solenoid moving 2) SS4 sensor perception 3) Shutter motor moving 4) SS2 sensor perception 2. Checking the cable contact state 3. The shutter cover interference removal.
39	The shutter close cropper	1. Shutter motor moving(MOT1) cropper 2. SS1 sensor perception cropper 3. The cable contact state badness 4. It interferes when operating like a shutter cover	1. Checking the shutter motor moving 2. Change the SS1 sensor 3. Checking the cable contact state 4. The shutter cover interference removal..
3A	Failing in taking out the bill in the shutter (Remaining amount bill is sensed after a shutter is closed)	1. SS3 sensor senses always ➔ sensing always among 2 Points 1point 2. The cable contact state badness 3. The perception cropper due to the internal alien substance of the shutter. 4. Not insufficiently removing a bill after the bill dispense within 10 seconds.	1. Change the SS3 sensor. (Change the SS3 Receive sensor) 2. Checking the cable contact state 3. The feculence removal of the inside the shutter.
3B	The shutter moving cropper	1. SS4 sensor senses always	
4A	The retract moving cropper. (The shutter location is strange)	1. SS1 sensor perception cropper 2. It interferes when operating like a shutter cover 3. The cable contact state badness	1. Change the SS1 sensor. 2. The shutter cover interference removal. 3. Checking the cable contact state

4B	The retract moving cropper. (Tray down moving cropper)	1. DS2 sensor perception cropper 2. Retract motor(MOT2) moving cropper 3. Interfering in the tray moving 4. The cable contact state badness	1. Change the DS2 sensor 2. Checking the retract motor moving 3. The tray moving interference removal 4. Checking the cable contact state
4C	The retract moving cropper. (Tray up moving cropper)	1. DS1 sensor perception cropper 2. Retract motor(MOT2) moving cropper 3. Interfering in the tray moving 4. The cable contact state badness	1. Change the DS1 sensor 2. Checking the retract motor moving 3. The tray moving interference removal 4. Checking the cable contact state
4D	The retract moving cropper. (A bill remains in a tray after operating	1. SS3 sensor senses always ➔ sensing always among 2 Points 1point 3. Interfering in the tray moving 4. The cable contact state badness	1. Change the SS3 sensor 2. The tray moving interference removal 3. Checking the cable contact state
4E	The shutter sensor badness or shutter is not equipped.	1. The ss2 sensor is sensed in the condition where a shutter is closed. (The SS1, SS2 sensor sensed) 2. SS2 sensor senses always 3. The cable contact state badness 4. The perception of the sensor is strange and setting up a perception is in trouble.	1. Change the SS2 sensor 2. Checking the cable contact state 3. Checking the 5V voltage
4F	It is not form of the normal order.	1. Receiving the command which I don' t designate from a specification. 2. The CPLD or ROM are bad	1. Change the Board or ROM
51	The motion of the motor is in trouble among the initial.	1. The motor is bad 2. The 24V voltages is low	1. Change the motor 2. Checking the 24V voltage

55	The upper portion bill lift of the delivery module fails.	1. The S1 or S2 sensors are bad. – Power badness : Emit sensor – Remains : Receive sensor 2 The perception because of the bill or alien substance. 3. The S2 sensor bracket is transforms. 4. The cable contact state badness 5. The 5V voltages is low	1. Change the S1 or S2 sensor 2. The bill and feculence removal. 3. Adjusting the S2 sensor align 4. Checking the cable contact state 5. Checking the 5V voltage
56	It is many compared with the quantity which the bill passing the S2 sensor requests.	1. The S2 sensor' s cable contact state badness. 2. The poor bill is dispensed. (Being torn, HOLE)	1. Checking the cable contact state 2. Removal the poor bill.
70	Receiving the dispensing order from the condition where the initial motion is in trouble.	–. The initial motion is in trouble or fail	–. After removing the cause for the failure, proceeding with the initial motion.
71	There is no cassette that there is the remaining amount of the bill among the dispensing movement.	–. After the pickup of the bill fails, generate at the dispensing order. ➔ Even if the initial operating and 7–segment to "00" , it happens.	–. After failing in the pick–up of the bill, power On/Off and proceeding with next motion.
72	There is no cassette of the ID requested among the dispensing movement.	1. The ID sensor perception badness. 2. The cable contact state badness 3. The switch is badness 4. The cassette equipped state badness.	1. Changing the ID sensor. 2. Adjusting switch' s align 3. Checking the cable contact state 4. Change the switch 5. The cassette installation
73	The cassette which a dispensing is required is not equipped.		
74	In the initialing the size input mistake of the bill.	–. The cassette and which is actually equipped when initializing the ID which a setting is not right.	–. The bill size according to relevant ROM spec is a possibility in 10M_SET

88	The motion which the program is strange.	1. The Board is bad. 2. The ROM is bad	1. Change the Board 2. Reassemble the ROM 3. Change the ROM
Remarks	The last bill collects among the requested reject. ➔Excepting the number of the last bill of the cassette.	-. The ROM is bad	1. Change the ROM
	The motor rotates in a continuation after finishing a dispensing (#88 error)	1. The S2 sensor perception error due to the light. ➔ The quantity of the pick-up quantity and S1,S2 sensor is different. 2. The Board is bad	1. Blocking out the light and make the S2 sensor perception normally. 2. Change the Board
Caution	1. The material and badness content that it is connected to the 24V power. -. Clutch : The pick-up badness and number frequent. -. Solenoid : The reject cropper -. Shutter Motor : The shutter and retract operation failure. -. Shutter solenoid : Shutter operation cropper 2. The material and badness content that it is connected to the 5V power. -. The sensor of delivery module : Sensing always with the sensor perception badness. -. BOARD IC : The initialization badness and operation failure.		

3.2 The delivery module error content and measures

Code	The cause and symptoms	The measures
55	The upper portion bill lift cropper of the delivery path. ➔The resistance value badness of sensor ➔The voltage value of the power 5V is low	➔The resistance value refresh bottom completion of the sensor. ➔One which when operating of the delivery module, it becomes the voltage value more than 5V.

11, 15	The bill pick up cropper. ➔The crack happens between the rubber roller of the bill input part. ➔The voltage value of the power 24V is low ➔The side cover and clutch interference.	➔Change the rubber roller ➔One which when operating of the delivery module, it becomes the voltage value more than 24V. ➔Setting the side cover and clutch interference area afloat.
2C	The thickness value of one bill is the standard value of less. ➔The thickness value turns to the shock.	➔Measuring and setting the double value.
30	The bill rejected is one transaction is 10notes. ➔A pick up is unstable and a skew happens. ➔The or greater in which the thickness value of the badness bill is the number (65) Standard double value.	➔Change the pick up roller ➔Measuring and setting the double value.
71	There is no cassette that there is a bill among the dispensing. ➔Happening when executing the dispensing command after the bill pick up cropper.	➔Certainly power down after the bill pick up failure. And power on. Making a dispensing.
72,73	The cassette perception badness. ➔The ID sensor damaged. ➔The aligning badness of the ID sensor and switch.	➔Change the ID sensor. ➔The aligning control of the ID sensor and switch.

3.3 The FM error content and measures.

Code	The cause and symptoms	The measures
16,17	The bill pick up cropper ➔The crack happens between the rubber roller of the bill input part. ➔The side cover and clutch interference.	➔Change the rubber roller ➔One which when operating of the delivery module, it becomes the voltage value more than 24V. ➔Setting the side cover and clutch interference area afloat.
2B		

71	There is no cassette that there is a bill among the dispensing. ➔ Happening when executing the dispensing command after the bill pick up cropper.	➔ Certainly power down after the bill pick up failure. And power on. Making a dispensing.
72,73	The cassette perception badness. ➔The ID sensor damaged. ➔The aligning badness of the ID sensor and switch.	➔Change the ID sensor. ➔The aligning control of the ID sensor and switch.

3.4 The cassette error content and measure

Code	The cause and symptoms	The measures
11,15, 16,17	The bill pick up cropper ➔The bill size establishment badness. ➔The Push Plate working badness in the cassette. ➔The pick up rubber cropper	➔Adjusting the upper guide depending on the bill size. ➔The working control the push plate in the cassette. ➔Change the pick up rubber
72,73	The cassette perception badness. ➔The aligning badness of the ID sensor and switch.	➔The aligning control of the ID sensor and switch.

3.5 The shutter error content and measure

Code	The cause and symptoms	The measures
38	The shutter open cropper. ➔The SS4 sensor cable poor contact. ➔The SS4 sensor perception cropper. ➔The shutter motor driving badness. ➔When the shutter cover operates, interfere	➔Change the SS4 sensor cable ➔The SS4 sensor perception bracket location control ➔Change the shutter motor ➔The interference part removal in the shutter cover operating
39	The shutter close cropper. ➔The shutter motor driving badness. ➔The SS1 sensor perception cropper. ➔When the shutter cover operates, interfere	➔Change the shutter motor ➔The SS1 sensor perception bracket location control ➔The interference part removal in the shutter cover operating

3A,3B	The bill jam in the shutter ➔The SS3 sensor cropper ➔ The SS3 sensor cable poor contact. ➔The aligning badness of the emit sensor and receive sensor.	➔Change the SS3 sensor ➔Change the SS3 sensor cable ➔The aligning control the SS3 emit sensor and receive sensor.
4E	It was the shutter sensor badness or the shutter was not equipped.. ➔The SS2 sensor is always sensed. ➔The voltage badness of the power 5V	➔Change the SS2 sensor ➔The voltage value control of 5V

4. The cleaning and checking

4.1 The cleaning and checking list

	Cleaning	Checking list
Essential item	· The combination Sensor · The detachable type Sensor · Cassette Pick Up Roller	· The connection of each connector · The wear condition of the Pick Up Roller · The sensor value condition of the double detection.
Selection item	· The dust removal of the feed path · The dust removal of the reject path	· Checking the cassette pick up part . The cassette equipped state notification . As a whole, each driving part confirmation

4.2. The cassette module checking

	Position	Method	Caution	Repetition
1	Separate Roller	Removing the dust pollution asking in the surface of roller by the cotton in which coating the alcohol. Returning the roller to hand, checking the washing condition.	Checking the strange noise condition and operational condition.	6month
2	Locking system	Pushing to a damage and check the locked state.		6month
3	Appearance	Checking the state of the overall cassette.		6month

4.3. The delivery module checking

	Position	Method	Caution	Repetition
1	Antistatic brush	Confirming the overall condition.		6month
2	Feed Belt and Timing Belt	While returning a knob to the hand, checking transfer and belt condition.	Checking the strange noise condition and operational condition.	6month
3	Solenoid and Gate	Checking the solenoid movement	The operation status confirmation of the transformation of the spring and solenoid.	6month
4	Feed Motor	Checking the exterior state of the feed motor and cable		6month
5	Double detect sensor and structure	Checking the exterior state. While turning the double detect lever to the hand, Checking the operation status.		6month
6	Lock Lever	The operation status check after the external confirmation.		6month
7	Screw etc	The external confirmation.	The state confirmation of The screw.	6month
8	Cable / Connector	The external confirmation	Checking the sensor condition after removing a pollution.	6month
9	Separate type sensor	Removing a pollution with the cotton.	Checking the sensor condition after removing a pollution.	1month
10	combination sensor	Removing the dust at the Inside of the sensor with cotton.	Checking the sensor condition after removing a pollution.	3month

4.4. The sensor checking

1) There is no function checking the WIZ-M sensor in independently.
2) You have to use the test program for the sensor check.
3) In order to see the voltage level of the sensor, using a tester under

-. By using the tester, checking the connector pin connected to a sensor and check The generating power voltage. (Using the radiator grille as a grounding then)

-. The generating power standard of the sensor voltage is the same as the next.

	When there is no bill	When there is a bill	Remarks
Voltage	Less than 1.5V	Over 3.5V	1note standard

-. Checking the assembly condition of the sensor if the voltage of the sensor broke away From a standard.

Replacing the PCB ASS' Y if there is no badness in the assembly condition.

-. The position checking the sensor on the main board is same under.

Sensor name	Position (pin no.)	Sensor name	Position (pin no.)
S1	JP13 (3)	SS1	JP6 (2)
S2	JP14 (3)	SS2	JP6 (5)
S4R	JP17 (5)	SS3	JP6 (9)
S4L	JP17 (4)	SS4	JP6 (13)
S5R	JP23 (5)	DS1	JP10 (3)
S5L	JP23 (4)	DS2	JP10 (7)
S6	JP24 (3)	DS3	JP10 (11)
S7R	F1 JP5 (5)		
S7L	F1 JP5 (4)		
S8	F1 JP7 (3)		
S9R	F2 JP5 (5)		
S9L	F2 JP5 (4)		
S10	F2 JP7(3)		

4) By using the tester, judging the badness of the sensor and passing examination.

① Emit sensor (GS Number D) TEST

-. The pin No.1 of the tester + terminal (red color) the sensor board and connection.

-. After connecting the tester – terminal (black color) to the No.2 of the sensor board, measuring the voltage value.

➔ There is a little difference but the voltage value of 1V is measured by the characteristic of the diode.

② Receive sensor (GS Number T) TEST

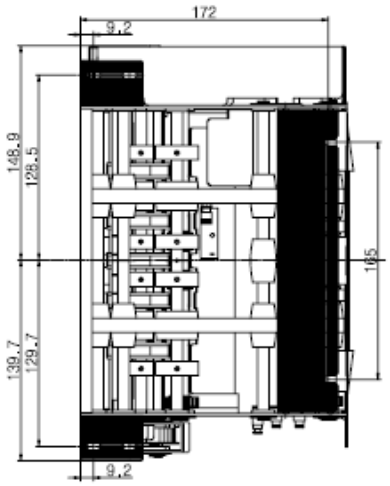
-. The pin No.1 of the tester + terminal(red color) the sensor board and connection.

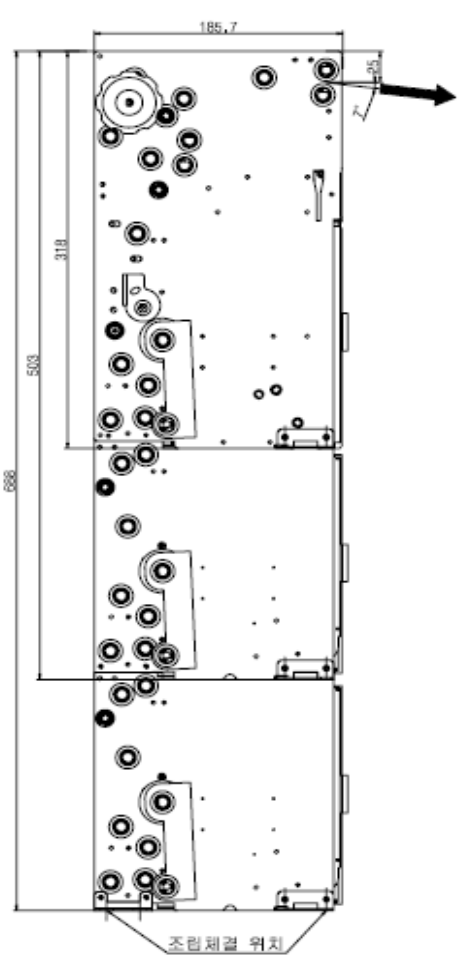
-. After connecting the tester – terminal(black color) to the No.2 of the sensor board, measuring the voltage value.

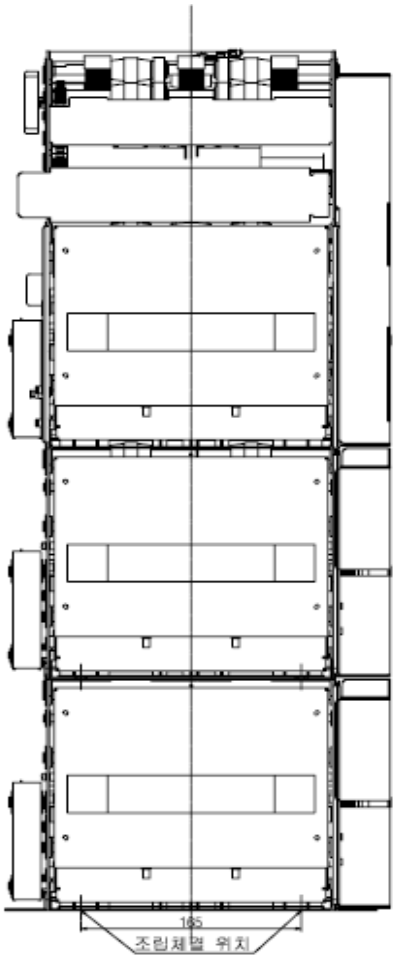
➔ There is a difference with the characteristic of the diode or transistor but it is measured by more than 10KΩ resistance values.

(checking the prosperity of the resistance value according to the change of the light)

5. Reference draft

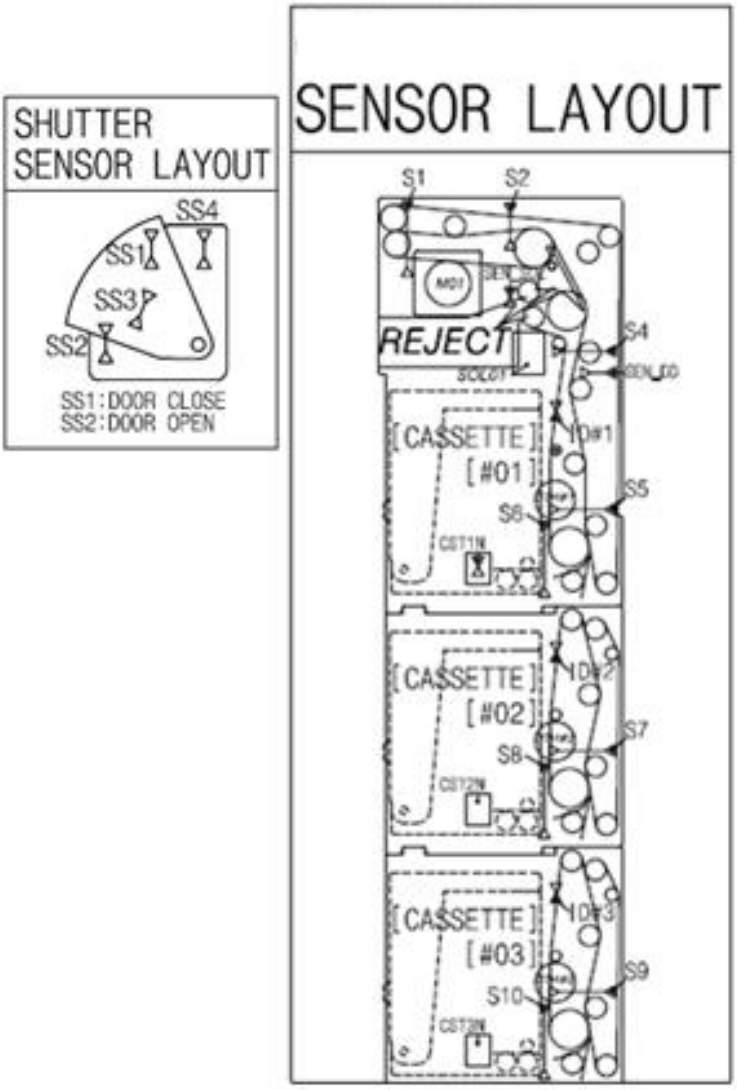






< WIZ-M3 >

5.2. The sensor position draft



〈WIZ-M3 〉

5.3. The main board connector position draft