



Revision	Date	Written by	Description
<div>CASH DISPENSING UNIT</div> <div>(MODEL: GLOBAL BILL MODULE – MULTI CASSETTES, GBM-M4)</div> <div>OPERATOR MANUAL</div> <div>Sep. 2003.</div> <div>Taenam Automatic Machinery for Customer Co.Ltd., R&D Laboratory</div>			

MODEL: GBM-M4		Written	H.I.SHIN	03- 9-25	Sheet
TITLE: GBM-M4 Operator Manual		Checked	CHAN	03- 9-25	1
		Approved	J.K.CHUNG	03- 9-25	24

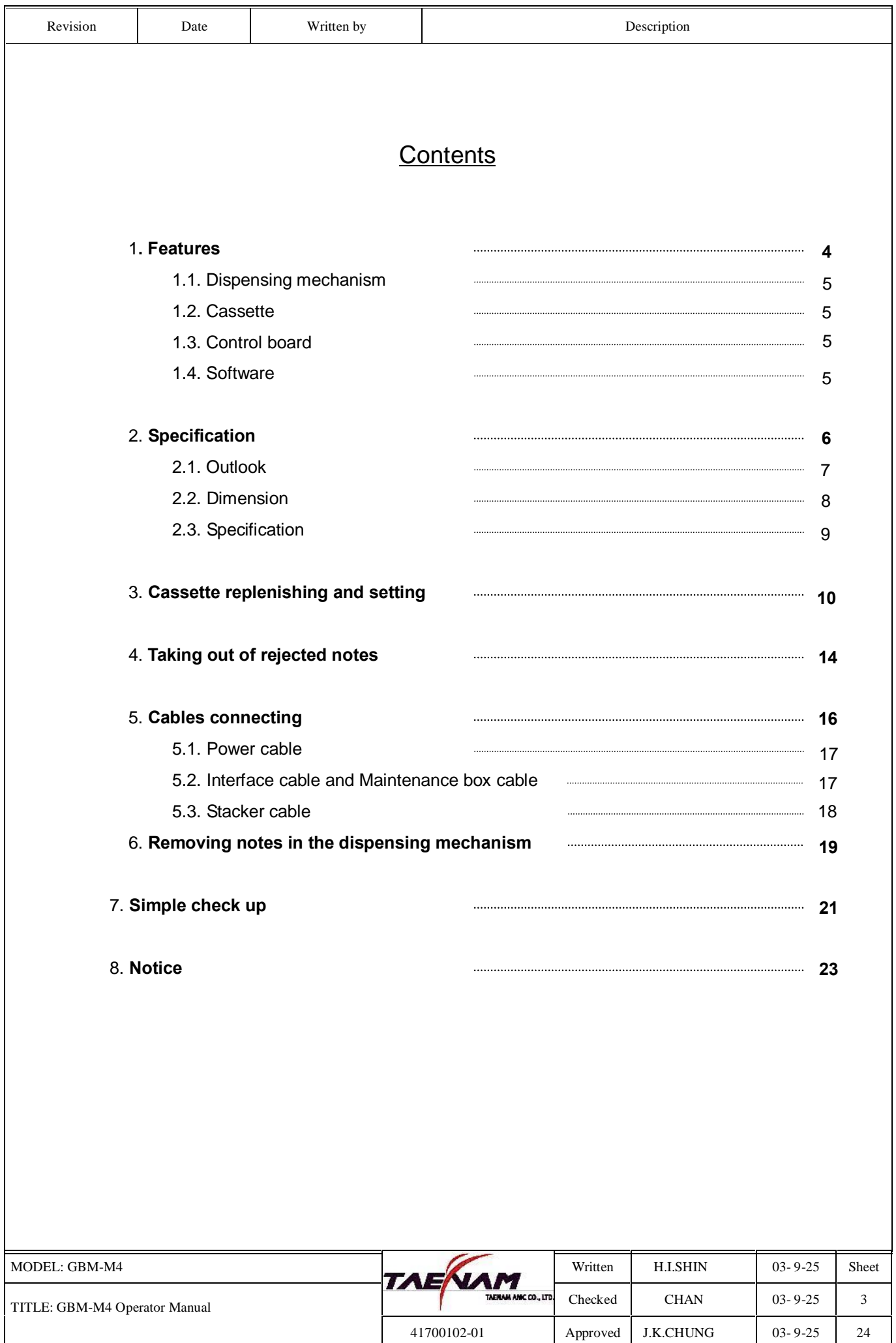


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Document History

NO	History	Date	Writer	Remarks
1	First Edition	2003. 9.25	H.I.SHIN	

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<div>1. Features</div>						
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1. Features

1.1 Dispensing mechanism

- Front-loading design for widely used front service type ATM.
- When doubled, skewed, and mutilated note are detected, those notes are sent to the reject bin.
- The hall sensor is used as the detecting sensor instead of the conventional optical sensor for preventing the possible contamination.
- The stepping motor is opted for precise and reliable note delivery control.
- Two long belts are installed for reliable note delivery control.
- Key-Lock is installed in reject bin for more security.
- Collecting rejected notes are very easy.
- Accord with the International Standards such as UL and FCC.

1.2 Cassette

- Almost all of the worldwide denominations are supported.
- Cassette Key is installed for more security.
- Nearly non-aperture design.
- Separation roller installed inside the cassette gives minimized miss feeds.

1.3 Control board

- Display error codes on seven segment LEDs.
- Easy check up due to five LEDs (Power 5V, 24V: Green, TxD: Yellow, RxD: Yellow, Error: Red).
- Maintenance box (option) prepared for on-site diagnostic.
- Standard RS-232C (9pin) interface connector.
- Molex 6pin power connector.
- Distinction of a note type by the Dip switch in a cassette.

1.4. Software

- Taenam's own protocol
- Very easy software upgrade using by maintenance box when needed.
- Enough memory for customer's request.

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2. Specification

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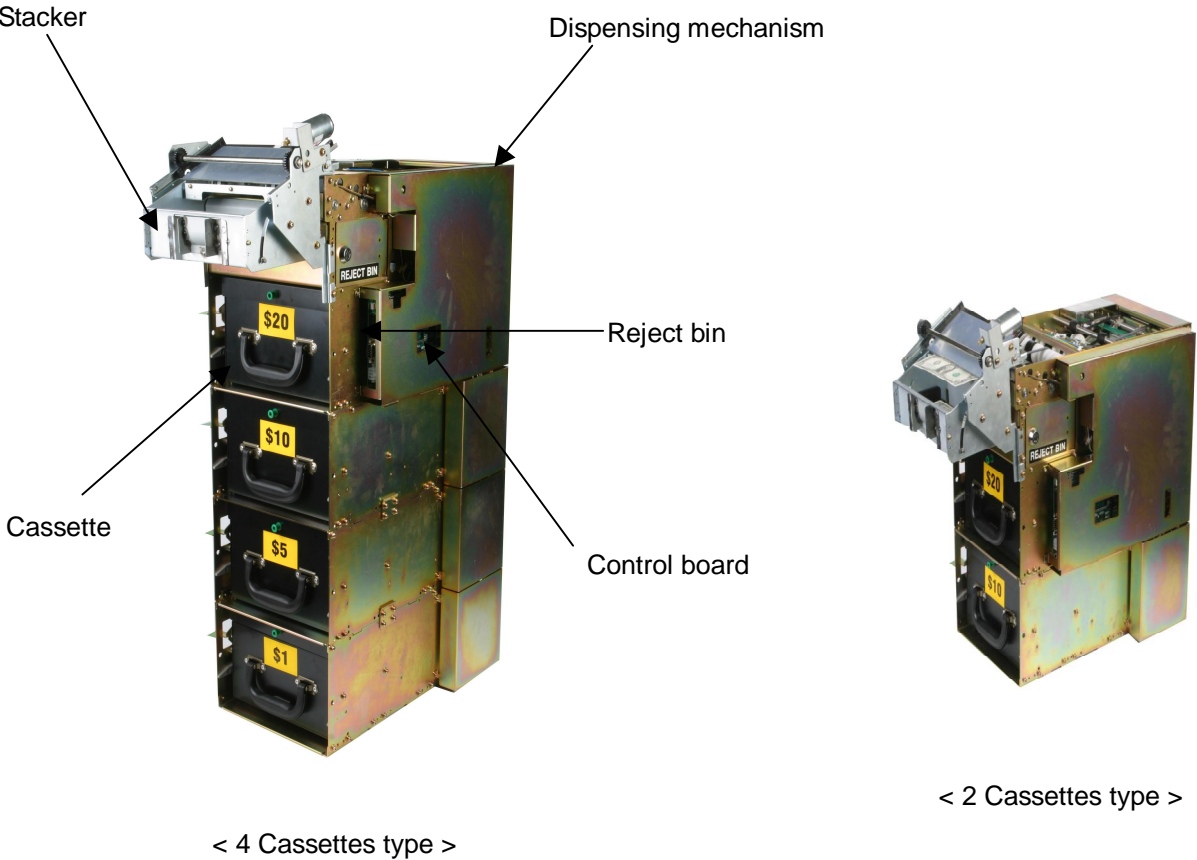
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2. Specification

2.1 Outlook

The GBM-M4 consists of as follows

- GBM-M4
 - Dispensing mechanism
 - 4 cassettes (Basic : 2 cassettes)
 - Control board
 - External power supply (option)
 - Maintenance box (option)
 - Stacker(option)



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< Cassette >



< Maintenance box >

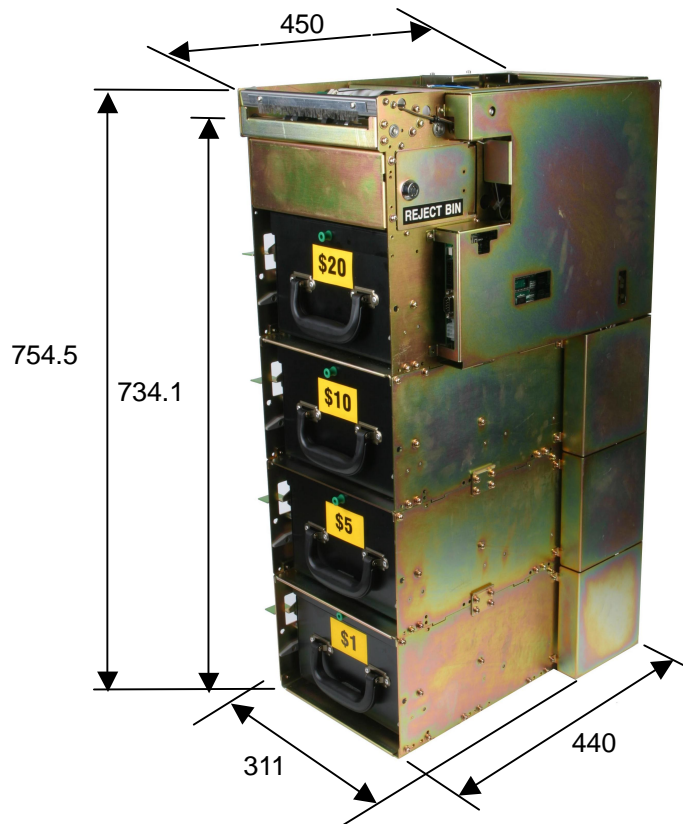
NOTE) *the appearances of these products may be slightly modified in designing.

**User can purchase GBM-M1, M2, M3 or M4 respectively according to the user's option.

But once you purchase one of the types, you can't be allowed to operate the type as you please.

(If you purchase GBM-M4, you can't operate GBM-M3 without any approval. It violates the UL approval standard.)

2.2 Dimension



(Unit : mm)

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2.3 Specification

Feature		Specification	Remark
Loading type		Front loading (Front service)	
Dispensing speed		7 notes per second	
Supporting Note size	Horizontal	120 ~ 170 mm	Contact us for different size
	Vertical	63 ~ 80 mm	
	Thickness	0.07 ~ 0.18 mm	
Number of cassettes		2 cassettes (Basic)	Up to 4 cassettes
Cassette capacity		2000 bills per cassette	Internal length: 230 mm (9.0in.)
Cassette key		Yes	
Reject type		Note by note reject, bin type	
Reject capacity		Over 200 notes	
Reject bin		Bin type	Right side at front view or front side
Reject bin key		Yes	
Near end sensing		30 , 70 , 150 notes	Field adjustable
Dimension	Height	446.5 mm (17.6 in.)	2 Cassettes configuration
	Depth	450 mm (17.7 in.)	
	Width	311 mm (12.3 in.)	
Power voltage		5V , 24V	
Protocol		Taenam type	Emulation available
Interface		Standard RS-232C	9 Pin D-sub connector
Weight	Dispensing Unit : 18Kg		Delivery unit excluding two cassettes
	Cassette : 3.5Kg each		Bills excluded
Stacker		100 bills per stacking	Option
Maintenance box		LCD(4 row x 16 char.), 5keys	Option

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<div>3. <u>Cassettes replenishing</u> <u>and setting</u></div>					
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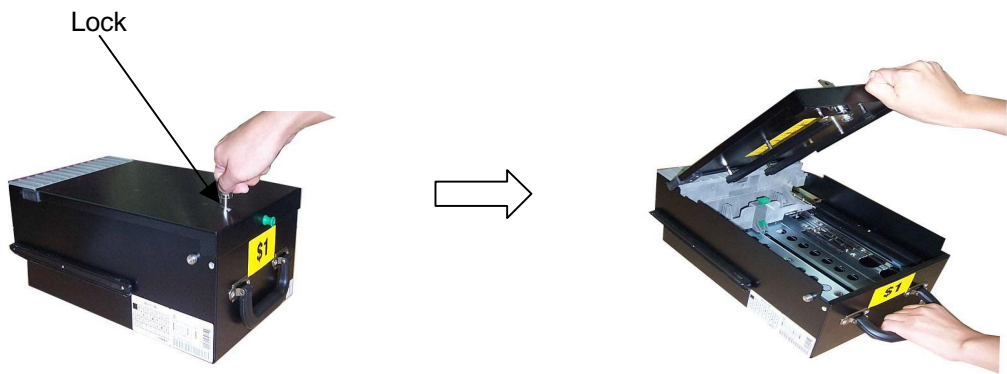
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3. Cassettes replenishing and setting

- 1) Press the lock-lever of the dispensing mechanism, at the same time, grasp the handle of the Cassette and pull out the cassette to the front.



- 2) After rotating the lock to the right with a cassette key, open the cassette lid upward.



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3) Pull the push plate to the back till locking.



4) Setting the notes evenly, and pushing the release button smoothly until the push plate contacts the notes.



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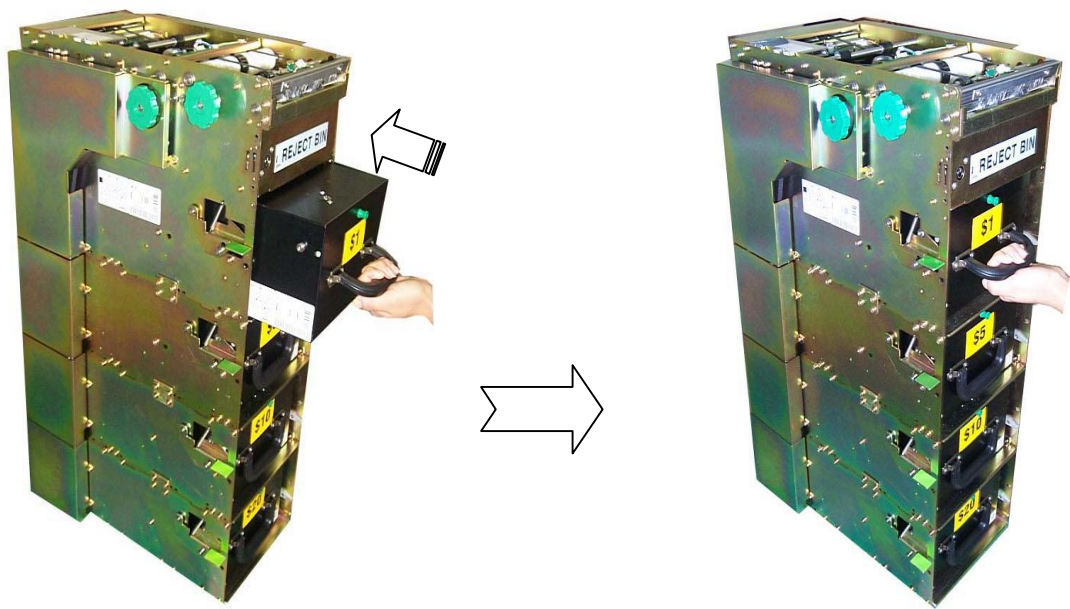


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5) After closing the cassette lid and turning the cassette key to the left side,
Check the cassette lid locking.



6) Push the cassette into the dispensing mechanism till locking entirely.



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4. Taking out of rejected notes

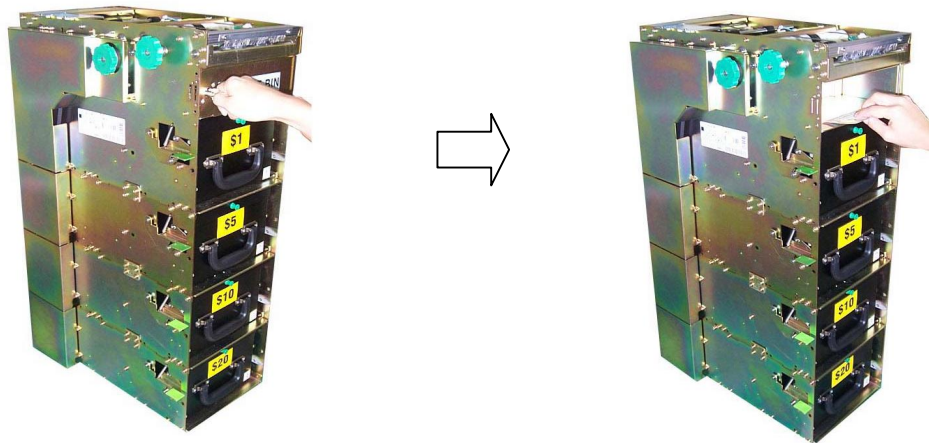
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4. Taking out of rejected notes

- Turn the lock to the right with reject bin key
- Open the reject bin lid
- Take rejected notes out of the bin
- Turn the lock to the upward with reject bin key for reject bin closing

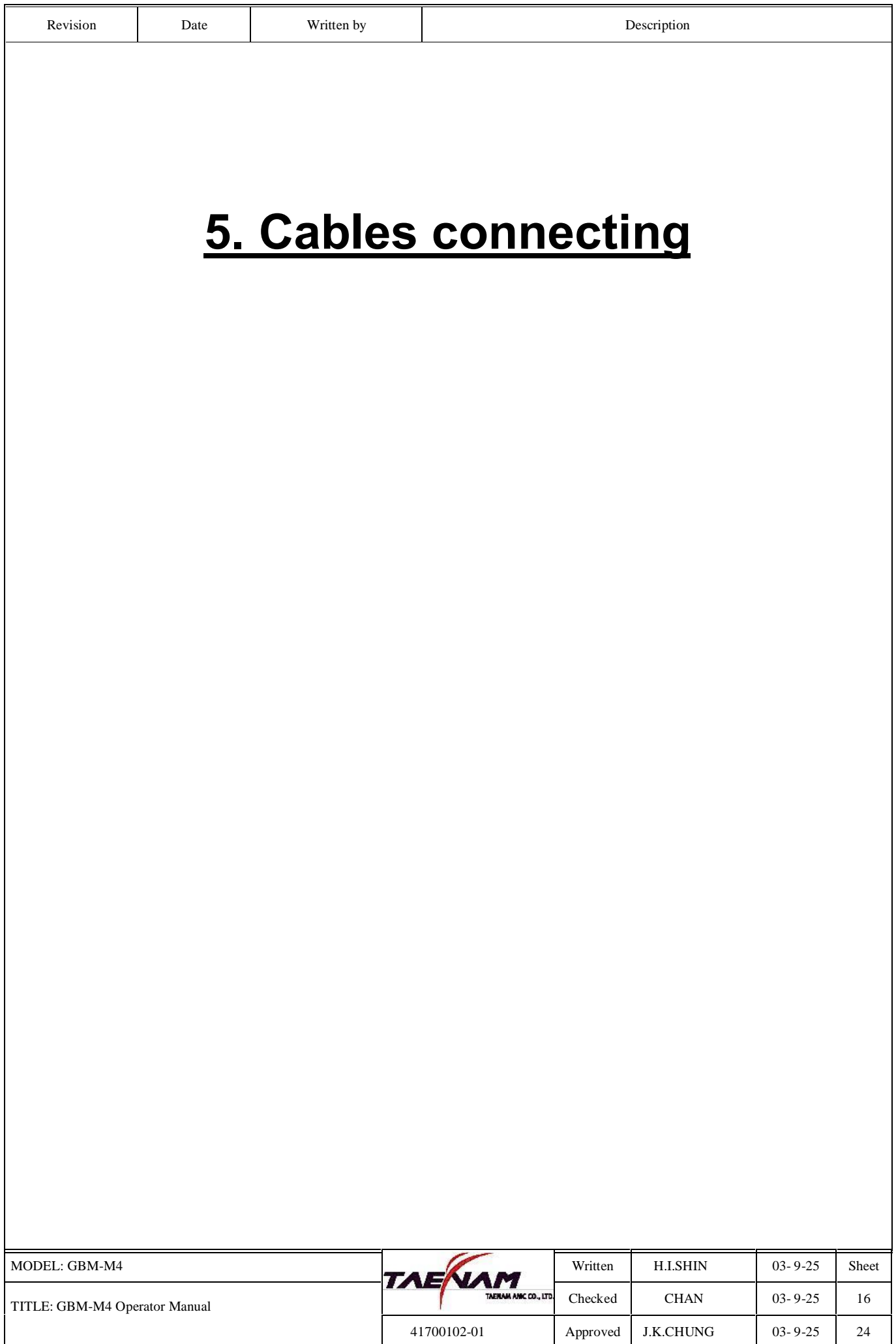


< Front side type >



< Right side type >

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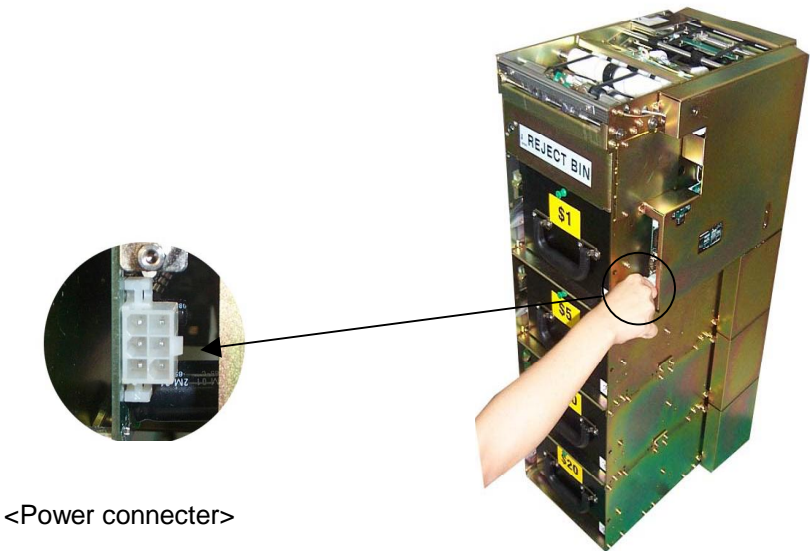


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5. Cables connecting

5.1. Power cable

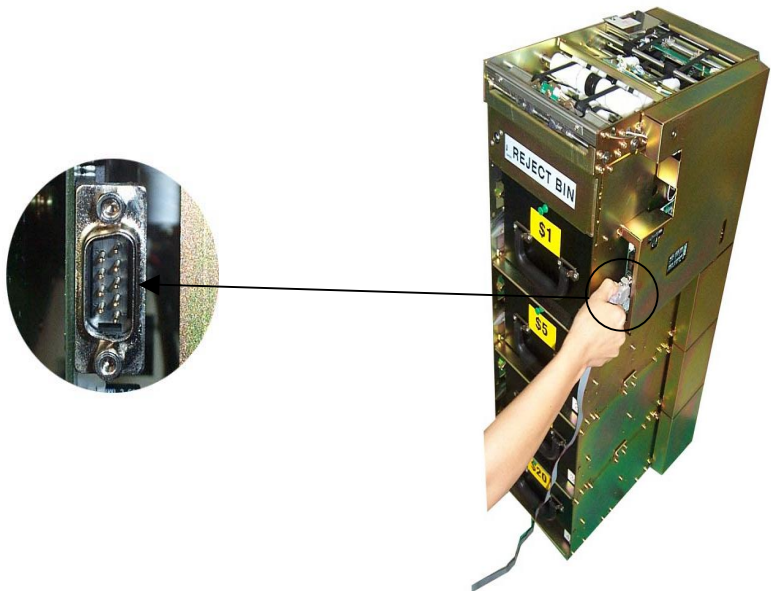
- Connect the power cable to the power connector of main board.



<Power connector>

5.2. Interface cable or Maintenance box (MT-2003) cable

- Connect the interface cable (RS-232C) to the serial port.
- Connect the MT-2003's cable to the maintenance connector of the GBM-M4 main board. Then the MT-2003 is ready to operate it.



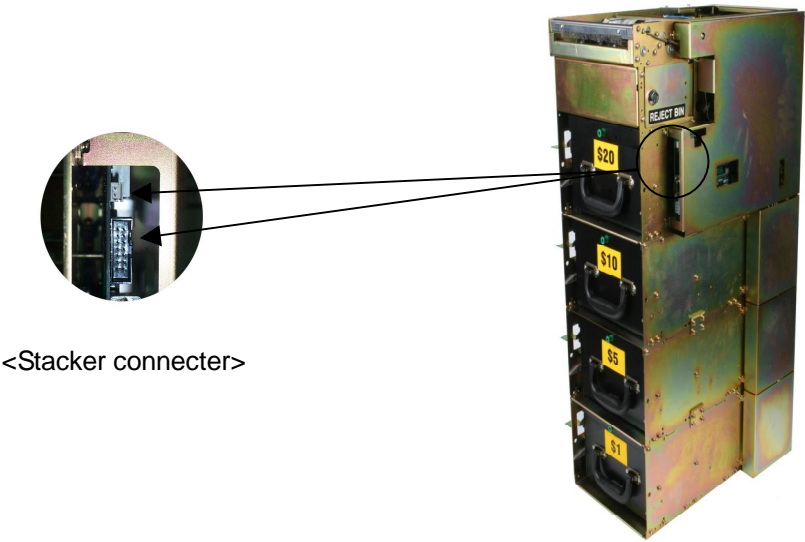
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5.3. Stacker cable

- Connect the stacker cable to the stacker connector of main board.




<Stacker connector>

NOTES

1. Make sure power is off when connecting the interface cable
2. For connecting the cable, make sure that power is off.

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<div>6. <u>Removing notes on the dispensing mechanism</u></div>							
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6. Removing notes on the dispensing mechanism

- The GBM-M4 may be hung up operation by abnormal events, such as note jam. In this case, there may be notes on the GBM-M4 transport belts. For resetting the GBM-M4, such notes should be removed there. To do so, rotate just a pulley to the front as the picture below. The GBM-M4 is ready for the next operation then.



Note) Make sure that power is off when clearing the note jam.

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7. Simple check up

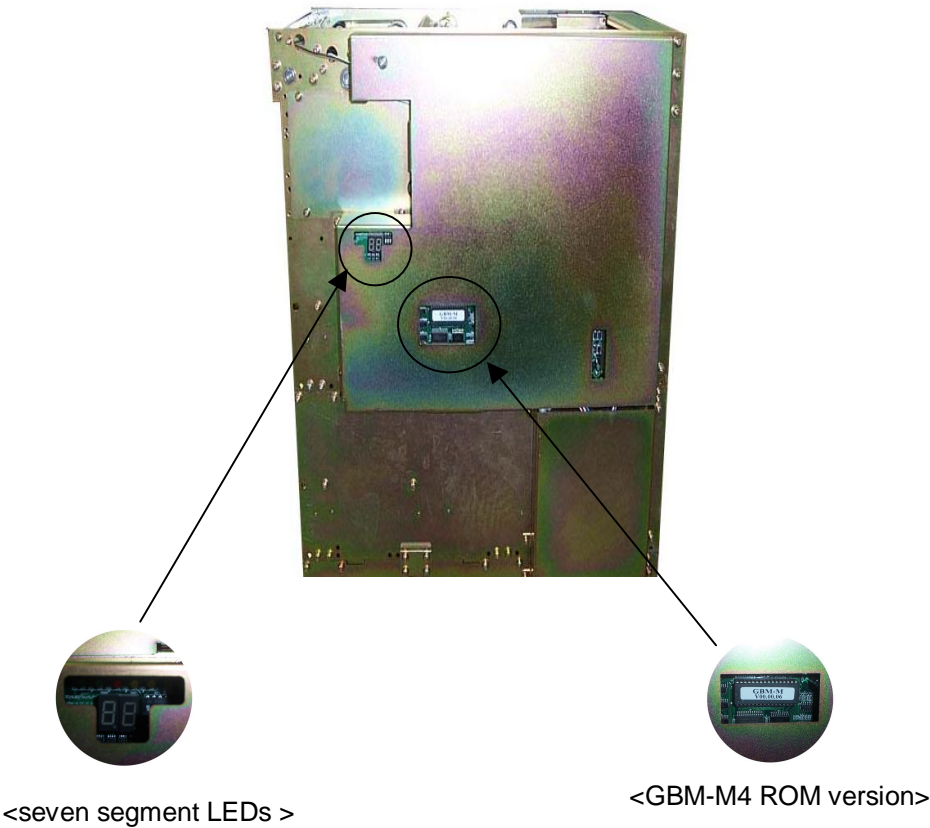
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7. Simple check up

- An operator can easily recognize something wrong in GBM-M4 due to LEDs.
 - When a green power LED is off in operation, check the power supply, control board or power cable.
 - When a yellow TxD LED is off for some time in operation, check the serial interface cable, control board or power cable.
 - When a yellow RxD LED is off for some time in operation, check the serial interface cable, control board or power cable.
 - When a error LED goes red, then check the GBM-M4 or control system to the GBM-M4.
 - When error happens, GBM-M4 displays the error code on its seven segments. (Except "00")
 - An operator can check GBM-M4 ROM version through the window of board cover.



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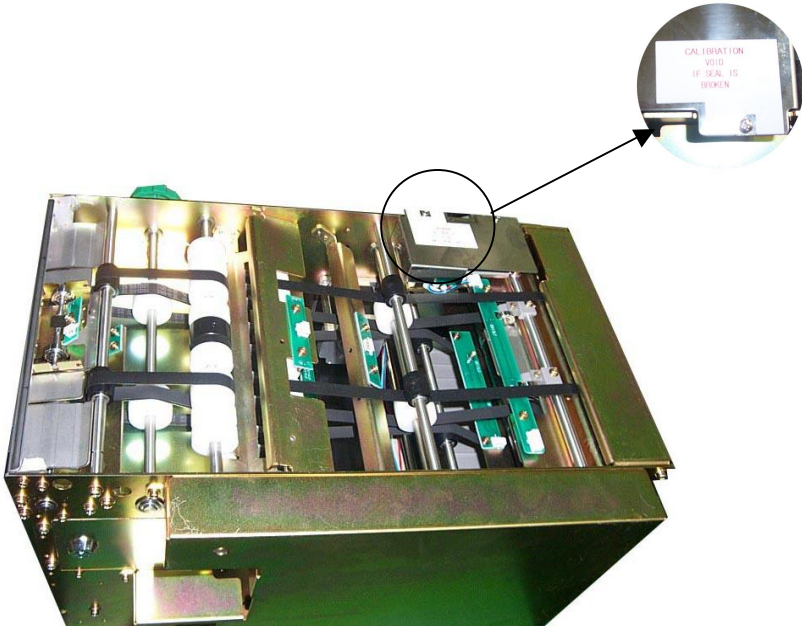
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<div>8. Notice</div>						
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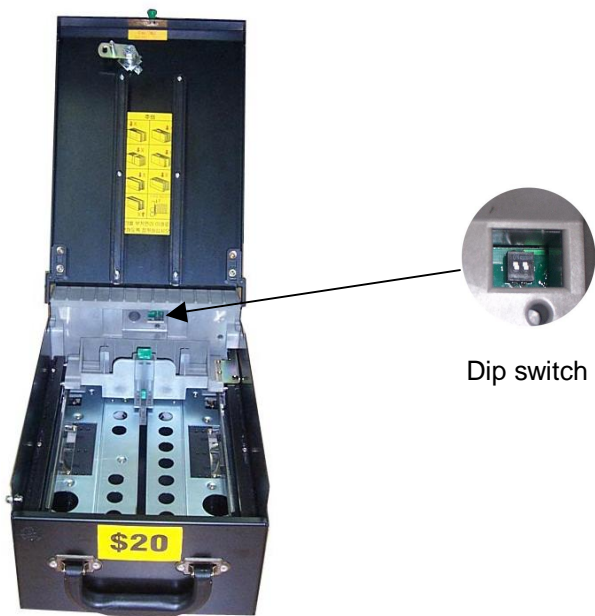
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8. Notice

- Do not tear out the label and do not tamper the mechanism.
When it happens, it causes faulty double note detecting mechanism.



- Do not manipulate the Dip switch in a cassette.
If not so, it causes a serious cash accident during operation.



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