CASH DISPENSING UNIT

(MODEL: GLOBAL BILL MODULE, GBM1000)

OPERATOR MANUAL


Taenam AMC Co.Ltd.,
R&D Dept.
## Document History

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1. Features
1. Features

1.1 Dispensing mechanism

- GBM1000 is designed for 1,000 bills dispensing and a family of GBM which has 2,000 bills cassette.
- Front-loading design for widely used front service type ATM.
- Support both external +36V and +24V power channel.
  
  Dispensing speed: 5 notes per second at 24V
  5 notes per second at 36V (default) or
  7 notes per second at 36V (by user’s manipulation)

Refer to the appendix on page 28.

- Automatically reducing the dispensing speed when doubled, skewed, and mutilated note are detected. And 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

- Very small size
- Display error codes on seven segments.
- Easy check up using 4 LEDs (Power : Green, TxD : Yellow, RxD : Yellow, Error : Red).
- Maintenance Box (optional) is prepared for on-site diagnosis.
- Standard RS-232C (25pin) interface connector.(May varies upon request)
- Molex 7pin power connector.
1.4. Software

- Taenam’s own protocol.
- SDD 1700 emulation (optional).
- Downloading software through host is possible when needed.
- Enough memory upon customer’s request.
2. Specifications
2. Specifications

2.1 Outlook

GBM’s main components are as below;

- GBM
- Dispensing Mechanism
- Long Cassette (default) or Short Cassette (optional)
- Control Board
- External power supply (optional)
- Maintenance Box (optional)

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

![GBM Components Diagram](image_url)
2.2 Dimension

![Diagram](Image)

( Unit : mm )

2.3 Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading type</td>
<td>Front loading (Front service)</td>
<td></td>
</tr>
<tr>
<td>Dispensing speed</td>
<td>7 notes per second</td>
<td>36 V</td>
</tr>
<tr>
<td></td>
<td>5 notes per second</td>
<td>24 V</td>
</tr>
<tr>
<td>Supporting Note size</td>
<td>Horizontal 130 ~ 185 mm</td>
<td>Contact us for different size</td>
</tr>
<tr>
<td></td>
<td>Vertical 63 ~ 85 mm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Thickness 0.07 ~ 0.15 mm</td>
<td></td>
</tr>
<tr>
<td>Number of cassette</td>
<td>One cassette only</td>
<td></td>
</tr>
<tr>
<td>Cassette capacity</td>
<td>1000 bills</td>
<td>Internal length: 120 mm (4.7 in.)</td>
</tr>
<tr>
<td>Reject type</td>
<td>Note by note reject, bin type</td>
<td></td>
</tr>
<tr>
<td>Reject capacity</td>
<td>40 bills</td>
<td></td>
</tr>
<tr>
<td>Near end sensing</td>
<td>30 ~ 200 notes</td>
<td>Varies at customer’s request</td>
</tr>
<tr>
<td>Power voltage channel</td>
<td>5V (normal 0.7A, peak 1.5A)</td>
<td>Automatic power voltage level detection</td>
</tr>
<tr>
<td></td>
<td>24V (normal 2.5A, peak 3.5A)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36V (normal 2.5A, peak 4A)</td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>Height 223 mm (8.78 in.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth 315 mm (12.40 in.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Width 322 mm (12.68 in.)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 12 Kg (5.4 lbs.)</td>
<td></td>
</tr>
<tr>
<td>Height between bottom and dispensing slot</td>
<td>187 mm (Approx. 7.36 in.)</td>
<td></td>
</tr>
<tr>
<td>Software</td>
<td>Proprietary protocol or various industry protocol emulation</td>
<td></td>
</tr>
<tr>
<td>Interface</td>
<td>Standard RS-232C</td>
<td>Varies at customer’s request</td>
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<tr>
<td>Maintenance board</td>
<td>LCD (4 row x 16 char.), 5 keys</td>
<td>Option for repair people</td>
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</table>
3. **Cassette replenishing and setting**
3. Cassette replenishing and setting

1) Grasp the handle of the Cassette and pull out the cassette to the front.

2) Turn the cassette upside down and place the cassette in the even table.
3) After rotating the Key clockwise using a Cassette Key, open the Cassette Lid upward.

4) Push the Push Plate to the backward till it is locked firmly.
5) Set the notes evenly, and push the Release Button smoothly until the Push Plate contacts the notes.

6) Close the Cassette Lid and turn the Cassette Key counter-clockwise, and check the Cassette Lid is locked correctly.
7) Turn the cassette upside down.

(NOTE: The Cassette Lid must **NOT** be set upward)

8) Push the cassette till its backside sticks to the locking magnets of the dispensing mechanism.
9) Set the Cassette Handle downward.

( O )

( X )
4. Taking out the rejected notes
4. Taking out the rejected notes

1) Turn the Key-Lock clockwise with a Reject Bin Key.
2) Open the Reject Bin Lid.
3) Take out the rejected notes.
4) Turn the Key-lock counter-clockwise with a Reject Bin Key to lock the Reject Bin.
5. Cable connections
5. Cable connections

5.1. Power cable

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

(Note: Make sure power is off when connecting the power cable and correct connecting is as the picture below.)
5.2. Interface cable

- Connect the interface cable (RS-232C) to the serial port.

(Note: Make sure power is off when connecting the interface cable)

5.3. Maintenance box (MT-2001) cable

- Connect the MT-2001’s cable to the maintenance connector of the GBM1000 main board. Then the MT-2001 is ready to operate it.

(Note: For connecting the cable, make sure that power is off.)
6. Removing notes in the dispensing mechanism
6. Removing notes in the dispensing mechanism

- The GBM might stop its operation in case of abnormal events such as note jam. In this case, there might be one or a couple of notes between the GBM’s Transport Belts. To reset the GBM properly, such notes should be removed right away. To do so, please take the following steps.

1) Turn off the system power.
2) Turn the pulley shown below clockwise to remove the notes toward the front side of GBM.
3) Now the GBM is ready for operation.

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


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<th>Revision</th>
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<th>Description</th>
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**7. Simple check up**

**TITLE:** GBM1000 Operator Manual

- **Written**  | 02-06-25 | 29
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7. Simple check up

- By checking LEDs on GBM’s Control Board, an operator can easily check out its status and the possible malfunction.

1) When Green power LED is off, check the Power Supply, Control Board or Power Cable.
2) When Yellow TxD LED is off at the long time in operation, check the Serial Interface Cable, Control Board or Power Cable.
3) When Yellow RxD LED is off at the long time in operation, check the Serial Interface Cable, Control Board or Power Cable.
4) When Error LED goes red, check the GBM or Control System to the GBM. When it happens, please refer to the Error code summary.
5) When error happens, GBM displays the error code on its seven segments. (Except “00”)  
6) An operator can check GBM’s ROM version through the window of board cover.
8. Notice
8. Notice

- Do not push hard where the Caution Label is located. It might cause malfunction or system breakdown.

- Do not tear out the Seal shown below. Do not tamper the Dispensing Mechanism. It causes malfunction of doubled note detecting mechanism.
9. Appendix
9. Appendix

- A user can operate the GBM at a speed of 7 notes a second when an external power is ‘36V’.
  1) A power make off.
  2) Take off the GBM’s board cover.
  3) Insert a plug onto the short-bar pin #2.

**NOTE:** do not touch the short-bar pin #1. It is used in communication mode selection.
4) Again cover with the GBM's board cover.

5) Power make on.

NOTE) In order to return to a speed of 5 notes a second, pull out a plug on the short bar pin #2.