



Global

**JM 80 Series
Currency
counter**

**USER'S
MANUAL**

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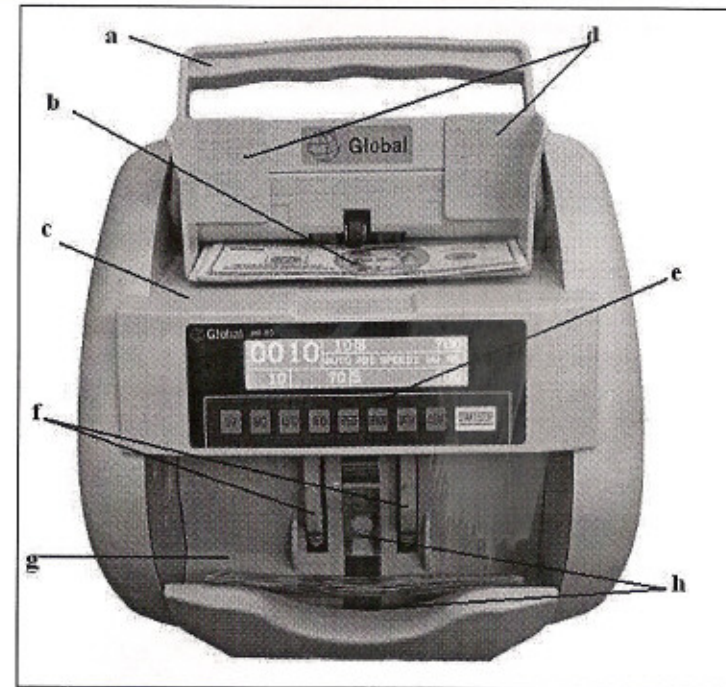
Before operation, please read through this User's Manual.

Warning:

1. This machine must be grounded promptly;
2. Power connected to this machine must be within the suitable voltage range;
3. Please switch off the power and unplug the power cable before opening the back cover or cleaning.

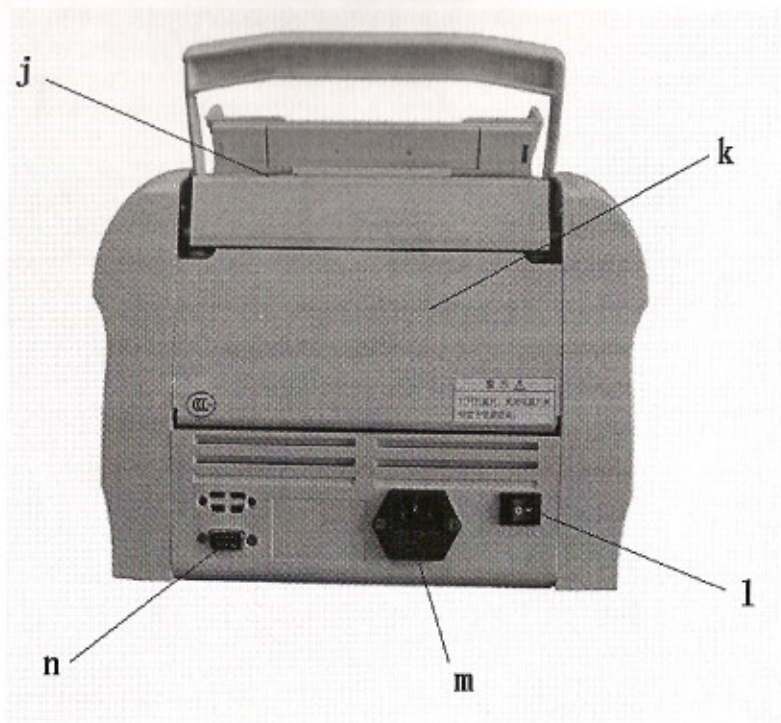
1. Introduction (Machine Parts and Functions)

Thank you for using the JM-80 series currency counter. This currency counter uses advanced technology and newest design idea, coupled with a brand-new outlook and an excellent counting and authentication ability (optional). By using it correctly, this currency counter can give you the best performance.



- a. Handle
- b. Feed Sensor
- c. Hopper
- d. Auxiliary Hopper Plate
- e. LCD Screen and Keypad
- f. Stacker Roller
- g. Stacker
- h. Stacker Sensor

Front View (Figure 1)



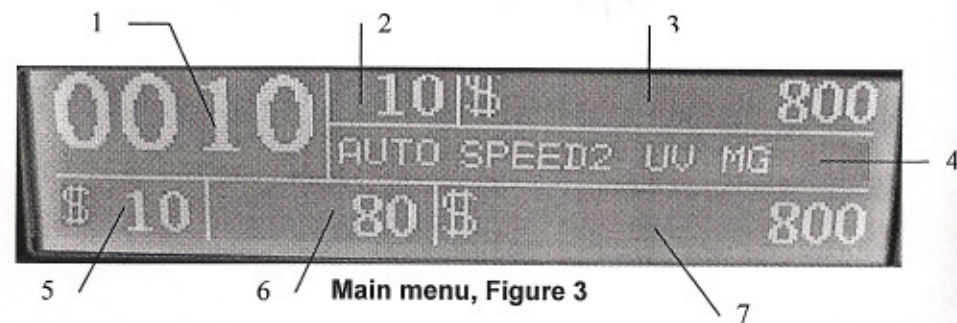
- i. Feeder-adjusting Knob
- j. Back Cover (the 220V/110V voltage switch inside)
- k. Switch On/Off Button
- l. Power Inlet
- m. External Display Interface

Back View (Figure 2)

2. Operating Instruction

2.1 Power on and LCD display

- (1) Make sure the voltage power you are using matches the requirements marked on the machine.
- (2) Please be sure that there is no note or other article left on the hopper (c, Figure 1), in the Stacker (h, Figure1), or in the counting path.
- (3) Connect the power. Switch on the power button. The counter will undergo a 2 seconds self-checking procedure. To make your machine work under the best status, warm it up for 10 minutes.
- (4) In the normal condition, the LCD display is shown as the following figure (Main menu, Figure 3).



Main menu, Figure 3

1	The current pieces counted
2	Batch area to display the preset batch number.
3	The accumulation value count of all counted denomination notes
4	AUTO: visible when the auto start counting is selected; MUL will be appeared instead of AUTO when manual start counting is selected. UV MG: visible or invisible when the function of counterfeit detection is on or off (optional) SPEED: always visible followed with different numbers (1, 2, 3, 4), means different counting speed selected
5	Show the denomination is selected (\$1, \$2,\$5, \$10, \$20, \$50, \$100)
6	Display the pieces count total after removing the bills from the Stacker; each effective pieces result is automatically accumulated after each counting, unless pressing key START/RESET to clear the previous counting.
7	The total count value of the current denomination

Now you can feed in banknotes for counting directly or count with special settings.

△Notes

- (1) When such information as "Sensor Error" (xxxxxx) is displayed during the process of turning on the machine and the counting process, please adjust them with reference to Section 3.1.
- (2) The default configuration are:
Auto counting; counting speed – 900 notes (SPEED2) per minute; the MG and UV detection is both on (optional, as figure 3).

2.2 Operation

(1) Control panel operation

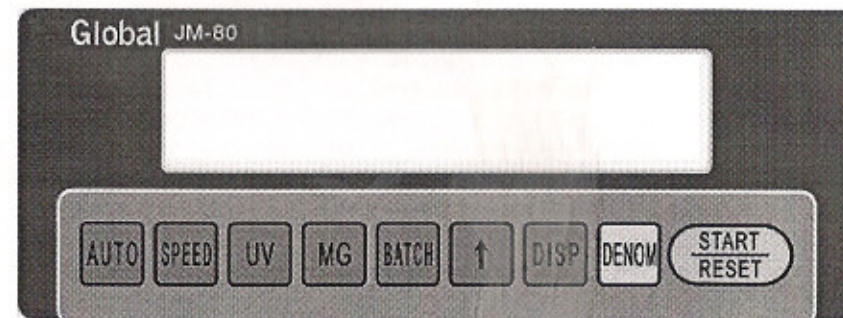



Figure 4

1. AUTO -- Automatic and manual mode selection key. When the machine is in the Automatic Counting Mode, the LCD screen displays "AUTO" in the second line; press this key, then "MUL" displays instead of "AUTO" for manual counting mode.
2. SPEED -- Sets counting speed
3. UV -- (optional) Press this key to turn on or off the UV detection function feature before running notes through the unit. When a UV suspect note is detected, the unit will alarm with "beep" and stop.
4. MG -- (optional) Press this key to turn on or off the magnetic detection function feature before running notes through the unit. When a magnetic suspect note is detected, the unit will alarm with "beep" and stop.
5. BATCH -- Set the desired batch number and to withdraw from the batching state. After the continual press, the display number is 100-50-20-10-0 in turn. The batch number is

displayed in the first line of the LCD screen (figure3). When there is no number displayed in this area, the machine will process the normal counting state without batch counting.


6.  -- Cursor key, to increase the preset batch number or current pieces counted digit by digit

7. DISP -- to view the detail report by denomination

8. DENOM -- Face-value selection key

To select different denomination when setting the denomination of USD in circulating mode

\$1, \$2, \$5, \$10, \$20, \$50, \$100

 **Note:** Under the Value-calculation mode, the proper denomination notes should be put on the Hopper (c, Figure 1) according to the face-value number (No. 3, Figure 3 & 4) displayed on the screen. After counting, the current pieces counted will firstly be displayed in the area No.1 (Figure 3); Remove the counted notes from the Stacker (h, Figure 1), the total pieces counted and total count value of the current denomination will be displayed in the area No. 6 & 7 (Figure 3) accordingly, while the numbers of current pieces counted will disappear since the relative data of the current denomination note has been stored. The total count value of this denomination note will be


automatically added to the area No. 3 (the total value count of the Figure 3)

9. START/RESET -- To quit from the state of parameter presetting; to clear the count display to "0"(including the total adding value), and to start the manual counting.

(2) Feeder-adjusting knob (j, Figure 2)

a. Use a coin to turn the feeder-adjusting knob. Turn clockwise (towards "+") to increase the height of the feeder so to enlarge the feeding slot. Turn counter-clockwise (towards "-") to decrease.

b. If banknotes cannot enter the feeder smoothly during counting, increase the height of the feeder (towards "+"). If error message "DOUBLE NOTES" or "CHAIN NOTES" appears frequently, decrease the height (towards "-").

 **Note:** Only turn the feeder-adjusting knob slightly. Do not turn it too much all at once.

(3) Auxiliary Hopper Plate (d, Figure 1)

a. Adjust the distance between Auxiliary Hopper Plates to be same as the length of the banknotes for smoother counting.

b. Adjust the Hopper Plates again if counting banknotes of different length when counterfeit detection is used to avoid false alarm for suspected note.

2.3 Main functions setting method:

2.3.1 Select Speed

Press "SPEED" key to adjust counting speed. This

counter features four different counting speeds for you to choose, namely S(PPEED)1, S2, S3 & S4, S1 is the lowest counting speed, and S4 is the highest speed. In normal situation, by considering an effective counting speed and an acceptable by-pass rate, we recommend you to count at SPEED2 (about 900 notes per minute).

2.3.2 To display detail information by denomination

Press DISP key, and the LCD screen will be switched to the following display:

\$1	0	0
\$2	0	0
\$5	0	0
\$10	0	0
\$20	0	0
\$50	0	0
\$100	0	0

From the left to right: the left column is the USD denomination from \$1 to \$100, the middle column is the pieces count result of each denomination, the right column is the value count result of each denomination.

After counting a batch of USD notes, the operator can press key "DISP" to view the detail report by denominations, even after the counted notes have been removed from the stacker. Press any key to return to the Main menu, Figure 3.

2.3.3 Counterfeit detection (Optional)

- After the self-checking for two seconds, the machine proves to be in the normal condition, and the UV and MG detection is on with "UV MG" displayed


on the second line of the screen. The machine counts the banknotes with both detection functions.

- Press the UV key, the "UV" disappears, and the machine counts the banknotes without UV detection.
- Press the MG key, the "MG" disappears, and the machine will count the banknotes without magnetic detection.

2.3.4. Batch Number Presetting and Clearance

Press the BATCH key, 100 will be displayed on the batch area. The batch number will be changed in the following sequence by continuously pressing this key:

100 -> 50 -> 20 -> 10 -> 0 -> 100


Hold the  key, the current selected batch number will be increased digit by digit.

Press the key BATCH again to quit from the batch counting.

2.3.5. Total Value Clearance

Press the START/RESET key to clear the total count value (No. 5, Figure 3) of the current denomination. Press this key to clear the total count value of the.

2.4 Parameter Setting ****

Press the BATCH key till the batch number shows 100, and press  the key till the number reaches 107, then press the key START/RESET, the display will show:

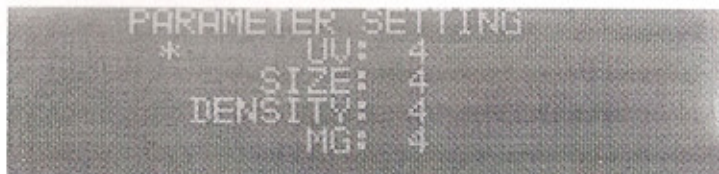


Figure 5

- 2.4.1** Press the key to adjust the sensitivity setting of UV detection
The sensitivity of UV detection is adjustable by continuously pressing this key, and the sensitivity can be adjusted from 1 to 9 (the default setting is UV=4).
- 2.4.2** Press the key to adjust the sensitivity setting of width detection
The sensitivity of width detection is adjustable by continuously pressing this key, and the sensitivity can be adjusted from 1 to 7 (the default setting is SIZE=4).
- 2.4.3** Press to enter the setting of density of the banknotes, and the sensitivity of banknote density is adjustable by continuously pressing this key. The sensitivity is adjustable from 1 to 9 (the default setting is DENSITY=4).
- 2.4.4** Press to enter the setting of MG detection, and the sensitivity is adjustable

by continuously pressing this key, and the sensitivity can be adjusted from 1 to 9 (the default setting is MG=4).

Press any other keys or hold the above four keys to withdraw from the parameter setting.

****: The parameter setting of JM-80 may be different from the above contents. This section will be updated as soon as the engineer accomplishes the program.

⚠Note:

For the sensitivity of counterfeit detection, the bigger the number, the lower the sensitivity.

Note: For optimum result, please perform the following calibration.

- (1) Should place a clean, about 70% new, banknote as the first note of the bundle. The counter will use it as a reference for setting authentication parameters automatically.
- (2) You can adjust the counterfeit detection precision according to your unique banknote face condition. If a lower misjudge rate is needed, lower the authentication sensitivity. (i.e. increase the level of authentication parameters) If a lower by-pass rate is needed, increase the authentication sensitivity. (i.e. decrease the level of authentication parameters). Please refer to 2.4 for authentication sensitivity adjustment.

3. Error Codes and their elimination

- 3.1 Error codes displayed after the self-test of the

machine, their meanings and their elimination

Error Information	Elimination
FEEDING SENSOR	Turn off the machine, check the corresponding sensors, remove the banknotes or other objects, and turn on the machine again.
LEFT COUNTING SENSOR	
RIGHT COUNTING SENSOR	
ERROR LEFT COUNTING	
STACKER SENSOR	
SPEED SENSOR	
UV SENSOR	

3.2 When the machine stops upon the detection of dubious banknote, the error codes and their elimination are as follows:

Error	Elimination
HALF NOTE	Take out the half note, and press START/RESET to continue the counting.
DOUBLE NOTES	Check the notes, mis-alarm could occur if the notes are very old, the machine will stop counting process even when the user presses START/RESET . All the banknotes should be removed from the stacker and hopper, and re-placed on the input hopper for recounting.

CHAIN NOTES	Take out the longer banknotes on the stacker, all the banknotes should be removed from the stacker and hopper, and re-placed on the input hopper for recounting.
ERROR WIDTH	Take out the narrower note, and press START/RESET to continue the counting.
JAMMED	Take out the banknotes on the stacker, put on the input hopper, and press START/RESET to count the bills again.
UV SUSPECTED	Take out and check the <u>suspected note</u> , and press START/RESET to continue the counting.
MG SUSPECTED	Take out and check the <u>suspected note</u> , and press START/RESET to continue the counting.

➤ Please note:

The number behind the error code shows the credibility of the detection of the suspected notes. The bigger the number, the higher the credibility.

4. Care and Maintenance

Keep the counter clean every day. Clean the sensors and parts inside the cover once a week.

5. Technical Specifications:

- ❖ **Banknote size:** 60×120—80×150 mm
- ❖ **Banknote thickness:** 0.02-0.07 mm
- ❖ **Detection contents:** half banknote, chain banknote, multi

banknotes and UV/MG suspected notes (optional)

- ◇ **Display mode:** LCD counter display
- ◇ **External Display:** parallel external monitor (optional)
- ◇ **Working environment:** Temperature 5 - 35°C, and humidity 20% — 80%
- ◇ **Volume:** 265×235×190 mm
- ◇ **Weight:** 5.5KGS
- ◇ **Power supply:** 220V/50HZ or 110V/60HZ (as per user's requirement)