



SOLUCIONES FINANCIERAS  
**MAJGEN**<sup>®</sup>

BC 52 UV/MG

CONTADOR DE BILLETES



GUIA DEL USUARIO

## Warning

Before turning the power on, please make sure there are no objects obstructing the operation of the rollers and wheels.  
Operate the machine only under normal temperature.

## ❖ Contents

Basic Instructions  
Important Safety Instructions  
Other Safety Considerations  
Box Contents  
Cleaning of the Machine

### 1. INTRODUCTION

- 1.1 About This Product
- 1.2 Front And Rear View
- 1.3 Control Panel
- 1.4 Specifications

### 2. GETTING STARTED

- 2.1 Power Up
- 2.2 Loading The Hopper

### 3. OPERATING MODES

- 3.1 Auto Mode
- 3.2 Counting Mode
- 3.3 Batching Mode
- 3.4 Adding Mode
- 3.5 Adding and Batching Mode

### 4. DETECTION FEATURES

- 4.1 Counterfeit Note Detection
- 4.2 Half Note Detection
- 4.3 Chain Notes Detection
- 4.4 Double Notes Detection
- 4.5 (dd)Note Size Detection

### 5. MAINTENANCE AND TROUBLESHOOTING

- 5.1 Maintenance
- 5.2 Troubleshooting










1







## ❖ Basic Instructions

The counter provides a simple and agile manner for counting money. It provides effective, accurate and reliable counting of banknotes that is suitable for a wide range of environments.

## ❖ Important Safety Instructions

When using this banknote counter, basic safety precautions should always be followed to reduce the risk of fire, electric or injury to persons, including the following:

 <b>Warning</b>	
	Do not use this product in areas where it may be exposed to water or other liquids.
	Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
	To reduce the risk of electric shock, do not disassemble this product. Take it to qualified service personnel when service or repair work is required. Opening or removing covers may expose you to dangerous voltages of other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
	Only use the cable provided with the unit. The use of other cables may result in electric shock, fire or cause serious damage to the unit.
	Plug the power cable into a proper grounded wall outlet. Do not remove the ground pin from the power cable. Failure to properly ground the machine can result in human injury or fire.
	Do not operate the unit in areas with high temperature or high humidity since it may prevent it from working correctly.

 <b>Caution</b>	
	When unplugging the power cord, do not pull it by the cord, but rather grip the plug to pull it out. Not following these instructions may result in electric shock, fire or damage to the unit.
	Do not use the unit if the power cord is damaged or if the plug socket contact is loose. Not following these instructions may result in electric shock, fire or other hazards.
	Do not place heavy objects over the cord and do not bend it excessively since it could get damaged. Not following these instructions may result in electric shock, fire or other hazards.
	When not using the unit for a long period of time, remove the power plug from the wall outlet.
	This unit is designed for indoor use in a ventilated environment. Keep the machine away from direct sunlight and strong magnetic fields, which could interfere with the detection sensors.

## ❖ Other Safety Considerations

This manual has been compiled to provide complete and clear instructions for operating the machine. Before using the machine, read this manual thoroughly. Pay special attention to Section 1-3, in order to familiarize yourself with the functions and operations of the machine.

- ◆ Read and understand all of the safety instructions.
- ◆ Follow all warnings and instructions marked on the unit.
- ◆ This product should never be placed near or over a radiant or heat source.
- ◆ This product should not be placed in a built-in installation unless proper ventilation is provided.
- ◆ This product should be operated only from the type of power source indicated in this user's guide. If you are not sure of the type of power supply in your location, consult your dealer or local power company.
- ◆ Never push objects of any kind into the unit through the case slots, since they may touch dangerous voltage points or shortcut parts, resulting in a risk of fire or electric shock.
- ◆ Unplug this product from the wall outlet and refer to servicing by qualified service personnel under the following conditions:
  - When the power supply cord or plug is damaged or frayed.
  - If liquid has been spilled into the unit.
  - If the unit has been exposed to rain or water.
  - If the unit does not operate normally while following the operating instructions, adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
  - If the product has been dropped or the case has broken.
  - If the product shows a noticeable change in performance.
- ◆ Take it to a qualified technician when service or repair is required. Do not try to replace the parts by yourself. Supplied spare parts are intended for use by a qualified person only.

## ❖ Box Contents

When opening the box, verify all of the items described below are included. If any item is damaged or missed, contact the distributor where the unit was purchased.

- 1) Banknote Counter
- 2) User Guide
- 3) Power Cord
- 4) Accessorie

## ❖ Cleaning Of The Machine



**WARNING: BEFORE DOING ANY CLEANING, TURN THE POWER SWITCH OFF AND DISCONNECT THE POWER CORD FROM THE MACHINE, KEEP IN MIND THAT PROBLEMS OR DEFECTS THAT ARISE FROM LACK OF PERIODIC MAINTENANCES ARE NOT COVERED BY THE WARRANTY.**

### A) Cleaning the Optical Sensors

It is important to clean all of the sensors in the unit to avoid any paper particles or dust from sticking to the sensors. This should be done everyday if possible. The glass surfaces of the sensors may be wiped with a soft cloth soaked with alcohol. The graphic on the next page shows the approximate positions of the sensors.

### B) Additional Recommendations

Avoid operating the machine in a dusty or dirty room. To guard the machine from the elements, always keep it protected with a cover when not in use.

# 1 INTRODUCTION

## ❖ 1.1 About This Product

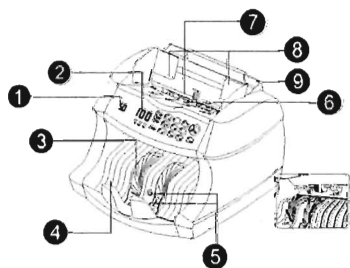
Thank you for purchasing our banknote counter. We hope you enjoy using it.

This product uniquely engineered mechanism incorporates the advantages of both the back loading and the front loading machines. Hence, it boasts unprecedented ease and precision of counting even with old, ragged bills. Steel roller shafts and sturdy parts allow this machine to tackle more heavy duty tasks.

With a built-in self checking system and advanced software to eliminate any user errors. This product is truly a "smart" assistant you can rely upon in any type of cash intensive environment.

## ❖ 1.2 Front And Rear View

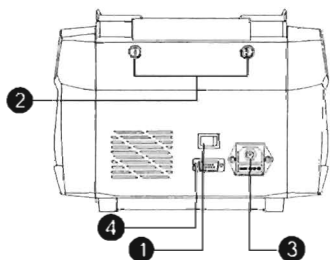
Front view



1. Screen A
2. Screen B
3. Stacking Rollers -transport counted bills into the stacker
4. Stacker -receives and holds counted bills
5. Stacker Sensors -signals presence of bills in the stacker
6. Hopper Sensor -signals presence of bills in the hopper
7. Hopper -holds bills that need to be counted
8. Hopper Brackets -help position the bills correctly
9. Folding Handle -used to carry the machine

5

## Rear view



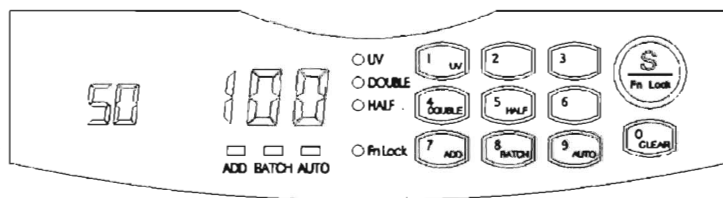
1. Power switch
2. Feeding gap adjustment screws

3. Power outlet
4. RS232 Port

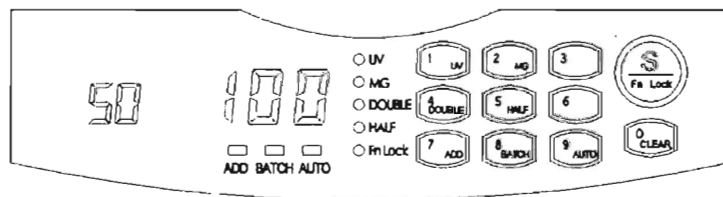
- turns the power on or off
- adjust for different bill Thickness (narrow for brand new ones, wide for very old ones)  
Note: Please do not change this setting unless the machine displays recurrent "DBL" or "Chn" error message
- to connect the power cable
- customer display connection port

## ❖ 1.2 Front And Rear View

## ❖ 1.3 Control Panel



UV Type



UV MG Type

6

## Button Description:

- "UV" -activates UV counterfeit detection. The button indicator will be lit up while this mode is on.
- "MG" - activates magnetic counterfeit detection. The button indicator will be lit up while this mode is on.
- "DOUBLE" -activates stuck notes detection. The button indicator will be lit up while this mode is on.
- "HALF" -activates half note detection. The button indicator will be lit up while this mode is on.
- "ADD" -activates the adding mode. The button indicator will be lit up while this mode is on.
- "BATCH" - Frequently used batch values can be set easily by pressing this button.  
The button indicator will be lit up while batching mode is on.
- "AUTO" -allows to select between automatic and manual counting mode. When auto mode is active, the button indicator will be lit up.
- "CLEAR" -keep pressing "Clear" button for 2S, the total number of counted bills shown on screen B can be cleared when in ADD mode.
- "S/Fn Lock" -Initiates or stops counting. Keep pressing "S" button for 2 seconds to shift the mode of the keypad. (Between Numeral Mode & Function Mode)

## ❖ 1.4 Specifications

Power Supply	110 /220 Vac 50/60 Hz 0.35A
Power Consumption	<60W
Counting Speed	Approx 1000 bills/min
Applicable Bill Thickness	0.075-0.15mm
Hopper Capacity	400 new bills or 200 old bills
Stacker Capacity	300 new bills or 150 old bills
Batch Range	0-999 banknotes
Feeding System	Roller Friction System
Screen A	Three Digits (LED)
Screen B	Four Digits (LED)
Ambient Temperature	0°C-40°C, 32°F-104°F
Operating Humidity	40%-90%
Size	266X295X206mm, 10.5"X11.6"X8.1"
Weight	5kg(11lbs)

## 2 GETTING STARTED

### ❖ 2.1 Power Up

Please make sure the hopper is empty and turn the power switch on. The machine will conduct a self-check by spinning the counting wheels several times. Both of the screens will display "0" when the machine is ready

### ❖ 2.2 Load the Hopper

It is important to load the hopper correctly in order to avoid jamming and speed up the operation of the machine.

Adjust hopper brackets to the size slightly wider (2-3mm on each side) than the width of the bills in the hopper. This will help you correctly place the bills in the hopper and will ensure smooth bill feeding.

## 3 OPERATING MODES

### Keypad Description:

The keypad is designed with dual modes, Numeral Mode and Function Mode. You can set the Preset Batch Values easily with the keypad in Numeral Mode, and set the function with the keypad in Function Mode. Keep pressing "S" button for 2 seconds to shift between Numeral Mode & Function Mode.

### ❖ 3.1 Auto Mode

By pressing the "AUTO" button to turn this mode on, the "AUTO" indicator will be lit up while this mode is on. Once the bills are put in the hopper, the machine will start counting automatically in Auto Mode.

After the machine is turned on, it defaults to Auto Mode. It is recommended to keep this mode on to save your time and increase your cash processing efficiency. If you turn off Auto Mode, the machine will not start counting automatically, you have to press "S" button to start each counting. For your convenience, all further instructions are applicable to Auto Mode.

### ❖ 3.2 Counting Mode

After the machine is turned on, it defaults to Counting Mode.

To shift to Counting Mode from another mode, deactivate the mode you were previously in and

machine will shift to Counting Mode automatically.

Once the bills are put in the hopper, the machine will start counting automatically, and move the bills from the hopper to the stacker.

The machine will stop counting when the hopper is completely empty. The current number of counted bills will be shown on screen B, and the previous number of counted bills will be shown on screen A.

The current number of counted bills shown on Screen B will be cleared by itself when a new stack of bills are put in the hopper or "S" button is pressed after emptying the stacker.

A specifically designed User Error Prevention System is integrated in the product to eliminate any possible of counting errors caused by the operator. When the machine is in Counting Mode, it will help you avoid accidentally mixing separated stacks. Be sure not to accumulate the bills more than the stacker can hold (300 new bills or 150 old bills). Otherwise, it will cause jamming and may lead to motor malfunction.

### ❖ 3.3 Batching Mode

After the machine is turned on, the keypad defaults to Numeral Mode.

If the keypad is set to Numeral Mode, you can enter the desired Batch Values with the keypad to activate the Batch Mode. Once the Batch Values is set, the "BATCH" indicator will be lit up, and the entered batch number is shown on screen A.

Once the bills are put in the hopper, the machine will start counting automatically. As soon as the counted number reaches to Preset Batch Values, it stops. Screen B will show the number of the bills of counted batch. After the stacker is emptied or "S" button is pressed, the machine will start counting till the counted number reaches to the Preset Batch Values again.

Frequently used Batch Values can be set easily by pressing "BATCH" button. The Batch Values can be changed in regular sequence of 100→50→25→20→10→OFF by pressing "BATCH" button. Other Batch Values can be set by entering the desired number with the keypad in Numeral Mode.

The number of counted bills shown on screen B will be cleared by pressing "S" Button after all the bills in the hopper have been counted and the stacker has been emptied.

Keep pressing "0" button for 2 seconds or enter "000" to deactivate Batch Mode before counting, and press "0" button to deactivate this mode after counting. Once the Batch Mode is deactivated, both of

the screens are cleared, and the "BATCH" indicator will be turned off. Notice that you can deactivate the Batch Mode following above instructions only after emptying the stacker.

If the number of counted bills in the stacker does not reach to the preset batch values, screen B will blink with the actual counted number.

To complete the batch operation, just put more bills in the hopper, and the machine will count the required number of bills automatically to finish the batch operation.

### **Changing Preset Batch Values While Counting:**

If you want to change the Batch Values, please wait until all the bills in the hopper have been counted and the machine has stopped, then take out all the bills from the stacker, and enter the new desired Batch Values. The newly set Batch Values will be shown on screen A.

- a) If you press "BATCH" button, the Batch Values is always start with 100. You can set other Batch Values by entering the desired number with the keypad in Numeral Mode.
- b) When you reset the Batch Values, the number of counted bills shown on screen B will be cleared by itself.
- c) If the previous batch operation was not completed, once the hopper is refilled, the machine will automatically count necessary number of bills to complete the batch operation.

## **❖ 3.4 Adding Mode**

In this mode the machine enables you to count multiple stacks of bills while keeping the track of the total number of the counted bills.

By pressing the "ADD" button to turn this mode on, the "ADD" indicator will be lit up while this mode is on. The total number of counted bills is shown on screen B, and the current number of counted bills is shown on screen A.

Once the bills are put in the hopper, the machine will start counting automatically. The machine will continue counting and accumulating when the hopper is refilled.

The current number of counted bills shown on screen A will be cleared when the "S" button is pressed, and the total number of counted bills shown on screen B will be kept.

To reset the total number of counted bills by pressing "CLEAR" button for 2 seconds. After emptying the stacker, you can start new counting and accumulating. By pressing "ADD" button to deactivate this mode, and both of the screens are cleared.

If you refill the hopper without emptying the stacker, the machine will keep counting and accumulating the new stack of bills to partially full the stacker. Be sure not to accumulate the bills more than the stacker can hold (300 new bills or 150 old bills). Otherwise, it will cause jamming and may lead to motor malfunction.

### ❖ 3.5 Adding and Batching Mode

In this mode the machine enables you to count the desired number of bills in batches while keeping the track of total number of counted bills.

By pressing the "ADD" button while in Batch Mode to turn this mode on, both of "ADD" and "BATCH" indicators are lit up while this mode is on. The machine will start accumulating from next batch. The total number of counted bills is shown on screen B, and the Preset Batch Values are shown on screen A.

## 4 DETECTION FEATURES

### ❖ 4.1 Counterfeit Note Detection

For UV or UV/MG counterfeit detection type machine, by pressing the "UV" button until the "UV" indicator is lit up, the unit can perform UV counterfeit detection. After the machine is turned on, UV counterfeit detection is performed by default.

The unit will check the UV signals of bills during counting. If the UV signals of bill are too strong, the machine starts beeping and stops automatically while this bill is just reaching the stacker, and a "UU" message will be shown on screen A. Press "S" button to continue counting.

For UV/MG counterfeit detection type machine, by pressing the "MG" button until the "MG" indicator is lit up, the unit can also perform MG counterfeit detection. After the machine is turned on, MG counterfeit detection is performed by default.

The unit will check the magnetic signals of bill during counting. If the magnetic signals of the bill are too weak or missing, the machine starts beeping and stops automatically while this bill is just reaching the stacker, and a "nng" message will be shown on screen A. Press "S" button to continue counting.

## ❖ 4.2 Half Note Detection

This product incorporates infrared light (IR) sensors to notify users if a half note has past through the counting mechanism.

By pressing the "HALF" button until the "HALF" indicator is lit up, the unit can perform half note detection. After the machine is turned on, half note detection is performed by default.

The machine starts beeping and stops automatically when a half note is detected, and a "HLF" message will be shown on screen A. Please remove the half note from the stacker.

To avoid errors, the machine will reset screen B automatically. Accordingly, all counted bills in the stacker need to be put back in the hopper to recount.

## ❖ 4.3 Chain Notes Detection

This product utilizes self-checking system to notify users if several notes have past through the counting mechanism at the same time.

This feature is activated automatically in all modes for your convenience.

The machine starts beeping and stops automatically when multiple notes have passed through, and a "Chn" message will be shown on screen A. Please remove the chain notes from the stacker.

To avoid errors, the machine will reset screen B automatically. Accordingly, all counted bills in the stacker need to be put back in the hopper to recount.

## ❖ 4.4 Double Notes Detection

This product incorporates infrared light (IR) sensors to notify users if several stuck notes have past through the counting mechanism.

By pressing the "DOUBLE" button until the "DOUBLE" indicator is lit up, the unit can perform double notes detection. After the machine is turned on, double notes detection is performed by default.

The machine starts beeping and stops automatically when stuck notes are detected, and a "DBL"

message will be shown on screen A. Please remove the stuck notes from the stacker.

To avoid errors, the machine will reset screen B automatically. Accordingly, all counted bills in the stacker need to be put back in the hopper to recount.

## ❖ 4.5 (dd) Note Size Detection

This product incorporates bill size detection system to notify users if a narrower bill than others has past through the counting mechanism. This feature helps you identify torn or folded bill.

This feature is activated automatically in all modes for your convenience.

The machine starts beeping and stops automatically when a different size note is detected, and a "dd" message will be shown on screen A. Please remove the different size note from the stacker.

To avoid errors, the machine will reset screen B automatically. Accordingly, all counted bills in the stacker need to be put back in the hopper to recount.

# 5 MAINTENANCE AND TROUBLESHOOTING

## ❖ 5.1 Maintenance

Most operational problems can be avoided by regular care and preventive maintenance. Taking regular care of your currency counter will significantly increase its lifetime and help you avoid costly repairs.

### To avoid problems:

Make sure there are no metal clips or rubber bands in the bills to count.

### ATTENTION:

You should always turn the machine off and disconnect the power cord before cleaning the machine.

To get the best results out of your machine, the following maintenance is recommended on daily basis:

Clean all the sensors in the machine with a soft brush or a can of compressed air to avoid any paper/dust particles from sticking to the sensors.

Clean all dusted parts of the machine with a can of compressed air. If necessary, clean the inside mechanism with soft brush and slightly damp cloth.

When not using your machine for an extended period of time, cover it with a drop cloth or plastic sheeting to prevent dust from settling inside.

## ❖ 5.2 Troubleshooting

Some error codes will be shown on the screen A during counting by self-check system.

The cause and solution of each error is listed as below:

Error code	Cause	Solution
---	Driving motor or stacker motor is overload	Turn off the machine, then remove the foreign objects and turn back ON to continue banknote counting operation.
ErrA/A	Hopper is not empty when power on	Empty the hopper then turn power on.
	Start sensor may be covered with dust	Clean the sensors with a soft cloth or a brush.
Errb/b	Counting sensors may be covered with dust	Clean the sensors with a soft cloth or a brush.
	Stacker is not empty when power on	Empty the stacker then turn power on.
ErrC/C	Stacker sensors may be covered with dust	Clean the sensors with a soft cloth or a brush.
	System malfunction	Please contact your supplier for help.
HLF	Half note is detected	Remove the abnormal note from the stacker and recount all other notes.
CHn	Wider note or Chain notes are detected	Remove the abnormal notes from the stacker and recount all other notes.
dd	Narrower note is detected	Remove the abnormal note from the stacker and recount all other notes.
dbl	Double notes are detected	Remove the abnormal notes from the stacker and recount all other notes.
UU	Counterfeit note is detected by UV sensor	Remove the doubtful note from the stacker, then press "S" button to continue counting.
mg	Counterfeit note is detected by magnetic sensor	Remove the doubtful note from the stacker, then press "S" button to continue counting.

The number followed the upper error code may be appeared to indicate the No. of the error object.

## Other Problem Description:

Problem description	Cause/Action
Does not function after turned on	Ensure the power cord is connected properly.
Machine fails to detect counterfeit notes	The UV sensor may have covered with dust. Clean the UV sensor using compressed or a soft brush.
The count results less than the real number or bills	The feeding gap is too wide. This may happen when brand new notes are counted. Because their thickness differs greatly from used notes relative to which machine's gap is adjusted by default. Narrow the gap a little bit by turning the "feeding gap adjustment screw" (refer to part 1.2 rear and front view) clock wise and try counting again. Repeat the procedure until suitable gap width is reached.
Bills jammed	Turn off the power. Remove any jammed bills by turning rollers or wheels manually if necessary. Look for any foreign objects inside the machine such as paper clips, rubber band etc. Remove it if any object is found. Turn the machine on and restart counting.

Please contact the local distributor if problems listed in the above table can't be solved with the proper method.

80% of all operational problems may be caused by dust and dirt inside the machine. Keeping the machine clean may help avoiding malfunctions.