AccuBANKER®
because your money counts
USA

User Guide

Digital Bill Counter

AB4000

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 temperatutres.

AccuBANKER®
because your money counts USA

AccuBANKER and its logo are registered trademarks or trademarks of Hilton Trading Corp. All Rights Reserved.

Table of Contents

Getting Started:

Basic Instructions

Important Safety Instructions

Other Safety Considerations

Box Contents

Cleaning of the Machine

1.0 General Controls and Parts

1.1 Specific Controls

2.0 Features

2.1 Count Mode

2.2 Batch Function

2.3 ADD Function

2.4 Automatic Start

2.5 Counterfeit Detection

2.6 Speed

Table of Contents Cont.

3.0 Operations
- 3.1 Power Up
- 3.2 Mode Selection
- 3.3 Count Function
- 3.4 ADD Function
- 3.5 Batch Function
- 3.6 Counterfeit Detection Functions
- 3.7 External Display
- 3.8 Emergency Stop Button

4.0 Troubleshooting Operational Problems
- 4.1 Avoiding Problems
- 4.2 Jamming

5.0 Maintenance of the Machine
- 5.1 Thickness Adjusting Screw

6.0 Error Messages and Their Meaning

7.0 Specifications

Basic Instructions

The AB 4000 Series low-cost front-loading banknote counter provides a simple and agile manner for counting money. It provides effective, accurate, and reliable counting of banknotes along with optional counterfeit detection.

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 Sections 1.0 – 3.0, in order to familiarize yourself with the functions and operations of the machine.

There are three models in the AB4000 series:

AB4000 Basic model: A range of functions including count, add, batch, and variable counting speeds.

AB4000 UV model: In addition to the functions of the basic model, there is ultraviolet (UV) counterfeit detection function.

AB4000 MG/UV: In addition to the functions of the basic model, there are two counterfeit detection functions – ultraviolet (UV) and magnetic (MG).

Important Safety Instructions

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

Warning	
	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 or other risks. Incorrect re-assembly 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.
	Do not operate the unit in areas with high temperature or high humidity since it may prevent it from working correct ly.

Caution	
	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 excessivel since it could get damaged. Not follwoing 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.

Other Safety Considerations

• 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 radiator or heater register. 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.

• This product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin (110V models only). This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace the outlet. Do not try to defeat the safety purpose of the grounding type plug.

• Never push objects of any kind into the unit through any openings, since they may touch dangerous voltage points or shortcut parts, resulting in a risk of fire or electric shock.

• Never spill liquids of any kind on the product.

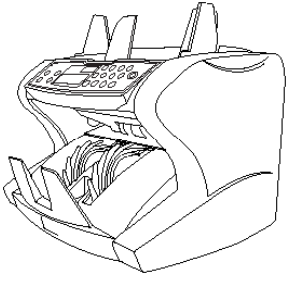
• Unplug this product from the wall outlet and refer to servicing by qualified service personnel under the following conditions:

- 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 been damaged.
- If the product shows a noticeable change in performance.

• Not following these safety instructions will expose you to severe/fatal risks, which, since already disclosed, will be the sole responsibility of the user.

Box Contents

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

1) 

2)

3)

Cleaning of the Machine

WARNING: BEFORE DOING ANY CLEANING, TURN THE POWER SWITCH OFF AND DISCONNECT THE POWER CORD FROM THE MACHINE. KEE P IN MIND TH AT PROBLEMS OR DEFECTS THAT ARISE FROM LACK OF PERIODIC MAINTENANCE ARE NOT COVERED BY THE WARANTY.

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 light-emitting or light-receiving sensors. This should be done everyday, if possible. The glass surfaces of the sensors may be wiped with a soft cloth soaked with alcohol.

B) Cleaning the Inside of the Machine Periodically

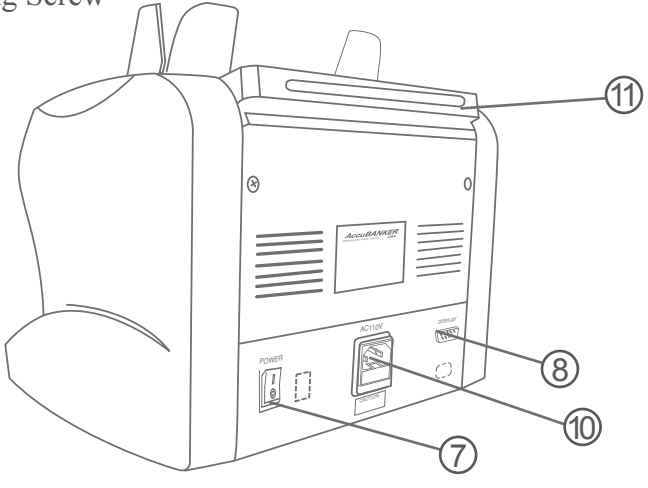
It is necessary to clean the inside of the machine once a month or when needed. Unplug the machine and lift the top cover to gain access to the interior. Blow any dust or paper particles out with a can of compressed air, such as AccuClean.

C) Additional Recommendations

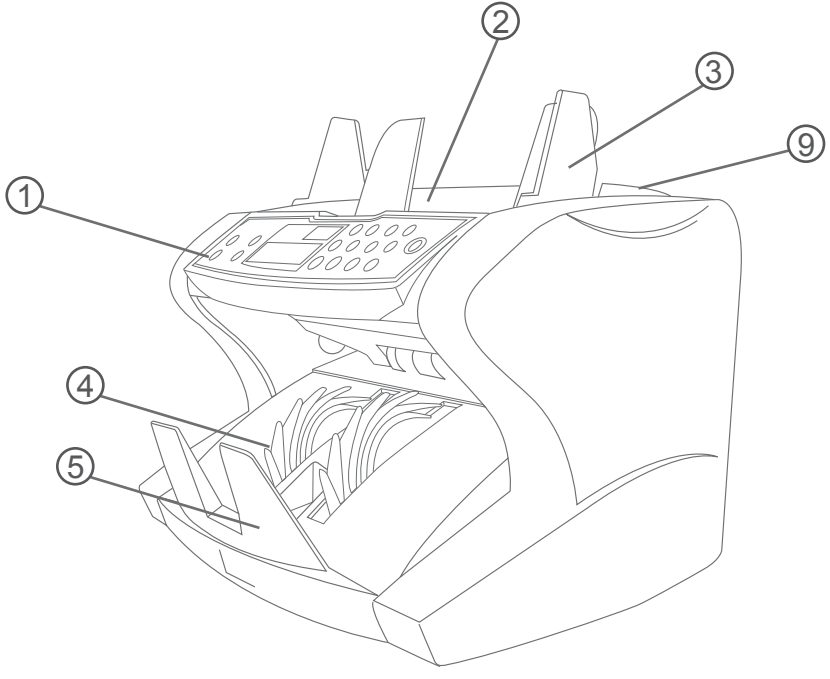
Avoid operating the machine in a dusty or dirty room. To guard the machine from the elements always keep it protected with the supplied cover, when not in use.

1.0 General Controls and Parts

1. Display
2. Hopper
3. Hopper Guides
4. Stacker
5. Catch Plate
6. External Display
7. Power Switch
8. External Display outlet
9. Thickness Adjusting Screw
10. Power cord Oulet
11. Handle

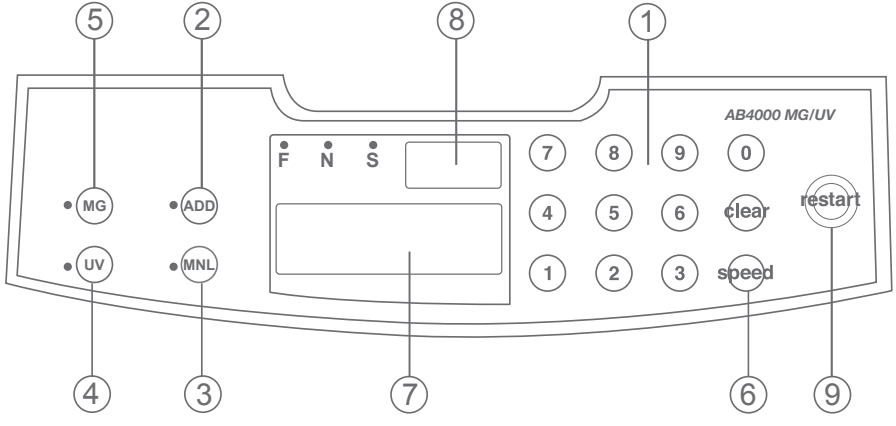


General Controls and Parts



1.1 Specific Controls

1. Numeric key pad (0-9)
2. ADD
3. MNL (manual start)
4. UV (available on AB4000 UV and AB4000 MG/UV models only)
5. MG (available on AB4000 MG/UV model only)
6. Speed selection
7. Counting Number Display
8. Batch Number Display
9. Restart



2.0 Features

2.1 Count Mode: This is the default mode. The machine will count all banknotes placed in the hopper.

2.2 Batch Function: Batch Counting in any range from 1 – 999.

2.3 ADD Function: This function adds and totals all consecutive operations up to 9999. Removing the banknotes from the stacker will not reset the count to 0.

2.4 Automatic Start: The machine begins counting automatically when banknotes are placed in the hopper. To disable this function or use Manual start, press the MNL button.

2.5 Counterfeit Detection: Check banknotes for counterfeits while counting with UV and/or MG counterfeit detection. UV detection can be used for most currencies, while MG is best suited for currencies that use magnetic ink.

2.6 Speed: The AB4000 Series has 3 variable speeds (approximate):
Fast (F): 1200 pcs/min
Normal (N): 900 pcs/min
Slow (S): 600 pcs/min

3.0 Operations

3.1 Power Up

Connect the power cord to power outlet and turn the POWER switch ON. The unit will conduct a self-test diagnostic. The counting number display will show “0” when the unit is ready. Refer to Section 6.0 for any self-test codes.

3.2 Mode Selection

Press the button corresponding to the desired function (ADD, UV, MG, MNL).

3.3 Count Function

To begin a basic counting function, place a stack of banknotes on the hopper. The machine will begin counting automatically and deposit the banknotes in the stacker. With the “MNL” button turned on the machine will not start counting until the “restart” button is pressed.

3.4 ADD Function

Pressing the “ADD” button will allow the counted banknotes to be added to all consecutive counted banknotes. Totals will be counted up to a value of 9999.

3.5 BATCH Function

Set the batch number by pressing the numeric keypad buttons 1 to 9. The selected number(s) will be displayed in the batch number display. Press the “clear” button to remove the selected batch number and turn off the batch function.

3.6 Counterfeit Detection Functions

3.6.1 UV Detection (for UV and MG/UV models only)

Press the “UV” button to turn on the UV detection. The corresponding indicator light will turn on. Also, the batch number display will show “Uv1.” Press the “UV” button once more to increase the sensitivity to “Uv2.” Pressing the “UV” button for a third time will turn the detection function and indicator light off.

3.6.2 MG Detection (for MG/UV model only)

Press the “MG” button to turn on the MG detection. The corresponding indicator light will turn on. The batch number display will show “NG1.” To increase the sensitivity, press the “MG” button again and the display will show “NG2.” Pressing the “MG” button for a third time will turn the detection function and indicator light off.

Operations Cont.

3.7 External Display (optional)
Connect the external display to the back of the machine by the serial cable. The external display will replicate the counting number from the counting display on the machine.

3.7 Emergency Stop Button
In the event of an emergency, this feature can be activated manually by depressing the red Emergency Stop Button located on the right side top cover of the machine. Once the Emergency Stop feature is activated, all operations will be canceled. The machine must be turned OFF; the foreign objects removed and turned back ON to continue the banknote counting operations.

4.0 Troubleshooting Operational Problems

4.1 Avoiding Problems

Avoid strong light or magnetic sources that will disturb the counterfeit detection functions.
Keep the machine clean and free of dust from the sensors.
Unplug the machine when not in use.

Pre-select the banknotes to be counted in the machine.
Do not attempt to count:

- Banknotes with metal clips
- Banknotes with adhesive media
- Washed banknotes
- Torn or ripped banknotes

Operational Problems Cont.

4.2 Jamming

Before beginning operation of the machine, make sure there are no foreign objects in any of the mechanisms such as silica bags, spare parts, etc.

To avoid jamming, ensure that banknotes are placed correctly in the machine. If jamming occurs, turn the machine off. Carefully remove the jammed banknotes from the machine with a wooden or rubber stick. Look for any foreign objects such as paper clips, staples, rubber bands, etc. and remove them, if necessary.

5.1 Thickness Adjustment Screw

The thickness gap is very important to ensure smooth and accurate counting. The gap is calibrated and set at the factory. Adjustments should only be made when persistent errors are encountered or as instructed by an authorized service technician.

Using a coin edge or flat head screwdriver, turn the thickness adjustment knob toward the left or "-" when "EC" or "Ed" messages appear frequently with chained or doubled banknotes. If excessive jamming and "Ej" error occurs, turn the knob toward the right or "+" to open the gap.

Error Messages and their Meaning

Self-test Codes	Meaning	Solution
E1	Left counting sensors are dusty or damaged	Clean the sensors or contact your authorized service center for repair.
E2	Right counting sensors are dusty or damaged	Clean the sensors or contact your authorized service center for repair.
E3 (MG/UV model only)	MG sensor error	Clean the sensors or contact your authorized service center for repair.
E4 (UV and MG/UV models only)	UV sensor error	Clean the sensors or contact your authorized service center for repair.
E5	Hopper sensor error	Clean the sensors or contact your authorized service center for repair.
E6	Stacker sensor error	Clean the sensors or contact your authorized service center for repair.

Error Messages and their Meaning

Error Code	Meaning	Solution
CF1 (UV and MG/UV models only)	UV suspicious banknote detected	Remove the suspected banknote from the stacker and recheck.
CF2 (MG/ UV model only)	MG suspicious banknote detected	Remove the suspected banknote from the stacker and recheck.
EC	Chain detection	Remove chained notes and check thickness adjusting screw (Section 5.0).
Eh	Half detection	Remove the half note and recheck.
EJ	Jam detection	Remove all banknotes from the hopper and stacker. Check the thickness adjusting screw and recount the bills (Section 5.0).

7.0 Specifications

Error Code	Meaning	Solution
HP	Empty hopper	Place banknotes in the hopper and restart.
St	Stacker obstruction	Check the stacker sensor for dust or obstructions. Once cleared recount.
Ed	Double note detection	Remove chained notes and check thickness adjusting screw (Section 5.0).

7.0 Specifications

- Ambient Temperature: 32˚ F – 104˚ F (0˚ C – 40˚ C)
- Ambient Humidity: 30% – 80% R.H.
- Feeding System: Roller Friction System
- Hopper Capacity: 300
- Stacker Capacity: 200
- Size of Countable Banknotes: (50 mm X 115 mm – 85 mm X 175 mm)
- Thickness of Countable Banknotes: ~ 0.06 – 0.12 mm
- Counting Number Display: Four Digits Red LED
- Batch Number Display: Three Digits Green LED
- Power Source: Single Phase ~110 V, 60 Hz or 220 V, 50 Hz
- Power Consumption: < 60 Watts
- Dimensions: 10.5” W X 9.7” D X 9.5” H (270 mm X 248 mm X 245mm)
- Weight: 15 lb (6.8 kg)
- Counting Speeds: (approximate) 600, 900, 1200 pcs./min.

Notes

Notes

AccuBANKER®
because your money counts USA