



DIGITAL BILL COUNTER

**Compact
Design**

**Multiple
Features**

**Digital
Functions**

ENGLISH

Owner's Manual

AB-1000



HILTON TRADING CORPORATION



**AccuBANKER
USA**

WARNING

Before turning the power on, please make sure that there are no objects obstructing the operation of the rollers and wheels. When operating the models AB-1000MG, AB-1000 UV and AB-1000MG/UV, please wait 5 minutes to allow the UV and/or magnetic systems to reach its maximum detection capability.



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Contents

Table of Contents

→ PART ONE: BASIC INSTRUCTIONS FOR ALL MODELS

BASIC INSTRUCTIONS	1
1.0 GENERAL CONTROLS	3
1.1 SPECIFIC CONTROLS	5
2.0 FEATURES	7
2.1 Counting Mode	7
2.2 Preset Batching Function	7
2.3 ADD Mode	7
2.4 Detect Mode	7
2.5 Automatic Start	7
2.6 Repeat Function “Batch”	7
3.0 OPERATIONS	8
3.1 Power Up	8
3.2 Mode Selection	8
3.3 “Counting” Function	8
3.4 “Detection” Function	9
3.5 Double Detection Functions	10
3.6 “ADD” Function	11
3.7 “Batch” Function	11

Contents

Table of Contents

→ ***PART TWO: INSTRUCTIONS FOR CLEANING OF THE MACHINE AND TROUBLESHOOTING OPERATIONAL PROBLEMS***

4.0	CLEANING OF THE MACHINE	13
4.1	Cleaning of Optical Sensors	13
4.2	Cleaning the Inside of the Machine	13
4.3	Additional Recommendations	13
5.0	TROUBLE SHOOTING OPERATIONAL PROBLEMS	14
5.1	Avoiding Problems	14
5.2	Jamming	14
5.3	When Counting Numbers Are Wrong	15
5.4	Additional Recommendation	15
6.0	ERROR MESSAGE DISPLAY	16
7.0	SPECIFICATIONS	17

Basic Instructions for all Models

GENERAL

Conveniently compact and stylish, the machines in the AB-1000 Series have been specifically designed to accurately count bank notes in bulk, thus reducing labor time and losses due to human error. Moreover, the machines in the AB-1000 Series are equipped with a micro-computerized mechanism that allows not only for accurate and high-speed counting, but also for adding and creating batches.

The machines of the AB-1000 Series make an invaluable aid in banks, supermarkets, movie theaters, retail locations and many other environments where moneys are used.

The model numbers and main features, relevant to each type of machine, are given below:

- **Model AB-1000:** Reliable, sturdy and well equipped, this machine counts at a rate of 1000 bills per minute, adds and creates batches. This is the base model in the 1000 Series, and your most cost effective choice when looking for bill counting equipment.
- **Model AB-1000 MG:** In addition to the functions of the AB-1000, this machine has an integrated counterfeit banknote detection device that works by means of dual magnetic heads. The machine will beep when a suspect bill is detected.

Basic Instructions

Basic Instructions for all Models

- **Model AB-1000 UV:** In addition to the functions of the AB-1000, this machine has an integrated counterfeit banknote detection device that works by means of UV Fluorescent Detection. Like model AB-1000 MG, the machine will beep when a suspect bill is detected.
- **Model AB-1000 MG/UV:** In addition to the functions of AB-1000, this machine has two means of counterfeit banknote detection which are: 1) Magnetic Detection and 2) UV Fluorescent Detection. This is the most complete unit in the AB-1000 Series.

This manual has been compiled to provide complete and clear instructions for operating the machine. It is made up of the following two major parts:

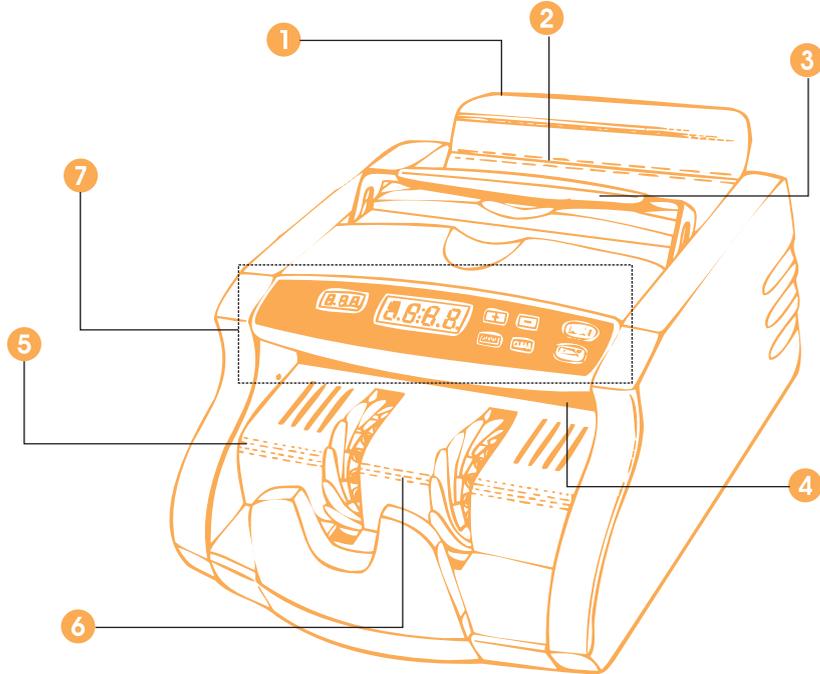
- **Part One:** Basic instructions for all models.
- **Part Two:** Instructions for Cleaning of the Machine and how to Handle Operation Problems.

Before using the machine, read this manual thoroughly. Pay special attention to PART ONE, in order to familiarize yourself with the functions and operations of the machine.

Basic Instructions

1.0 General Controls

- 1 Auxiliary Hopper Plate
- 2 Hopper
- 3 Retractable Handle
- 4 Metal Frame-Platform
- 5 Stacker
- 6 Optical Sensor
- 7 User Interface

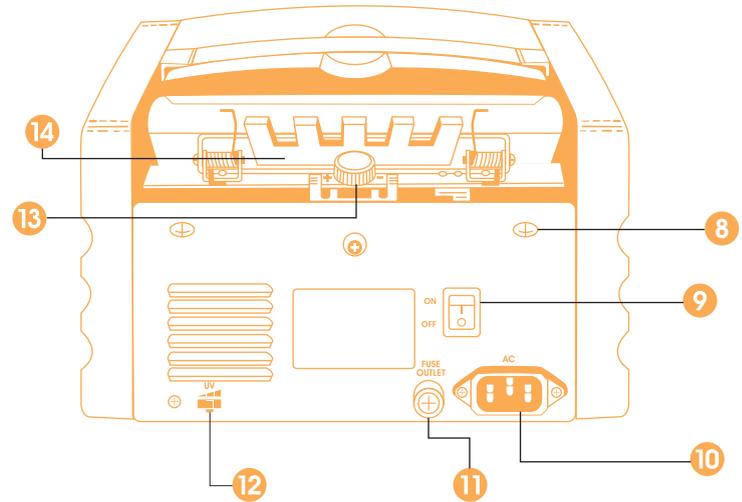


General Controls



Basic Instructions

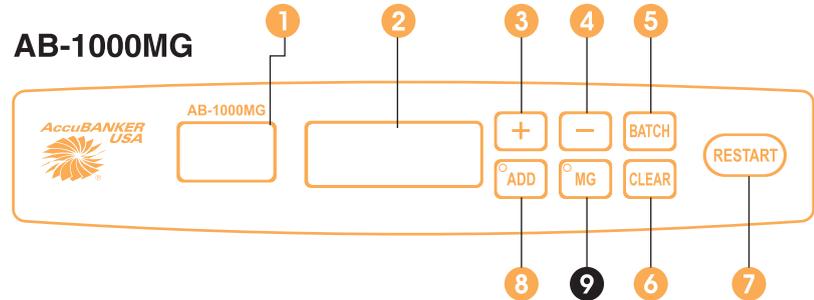
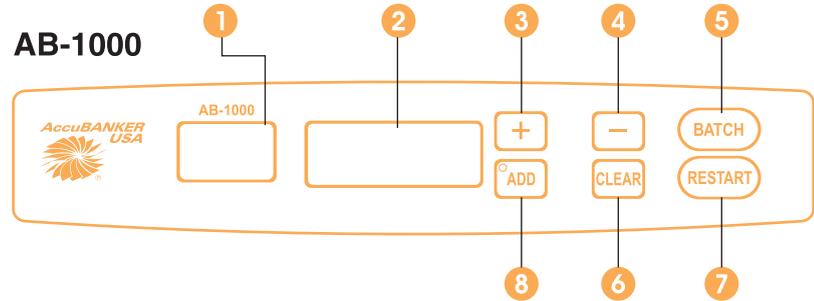
- 8 Fastening Screw
- 9 Power Switch
- 10 Power Outlet
- 11 Fuse
- 12 Ultraviolet Sensitivity Switch
- 13 Up and Down Adjustment Screw
- 14 Rubber Tongue



Basic Instructions

1.1 Specific Controls

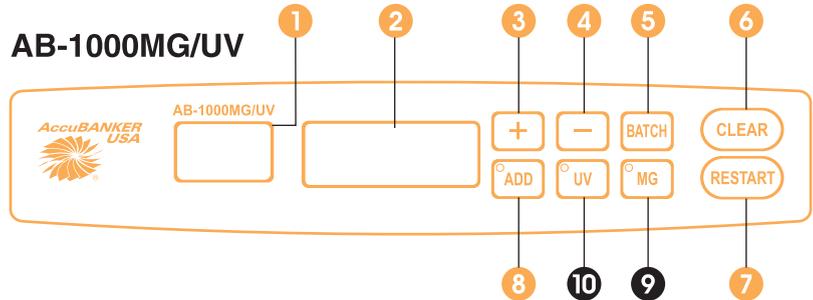
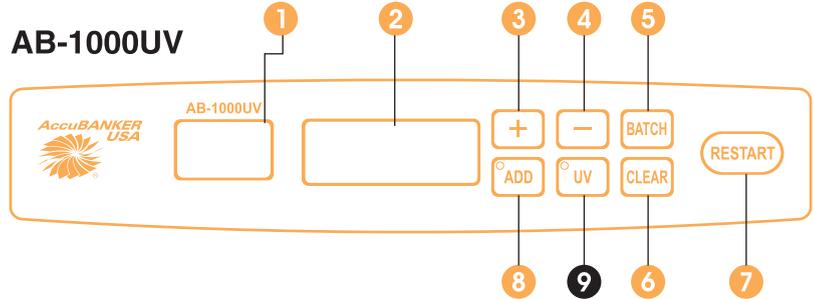
- 1 Preset number display (Batch display)
- 2 Counting number display (Counter)
- 3 Batch + Button (To add)
- 4 Batch - Button (To subtract)
- 5 Batch Button
(Preset 10, 20, 25, 50, 100, \emptyset)
- 6 Clear button for main display
- 7 Restart button (For manual restart)
- 8 ADD button (Adding function)
- 9 MG Button (Magnetic detection)



Specific Controls

Basic Instructions

- 1 Preset number display (Batch display)
- 2 Counting number display (Counter)
- 3 Batch + Button (To add)
- 4 Batch - Button (To subtract)
- 5 Batch Button
- (Preset 10, 20, 25, 50, 100, ∅)
- 6 Clear button for main display
- 7 Restart button (For manual restart)
- 8 ADD button (Adding function)
- 9 MG Button (Magnetic detection)
- 10 UV Button (Ultra violet detection)



Part One

2. Features

2.1 Counting Mode

Once turned on, the machine defaults to this mode, counting all the bill placed in the hopper.

2.2 Preset Batching Function

Counts bills per batch up to the numbers preset with the “Batch” and “+” or “-” buttons.

2.3 ADD Function

Counts all bills placed in the hopper and will add to the total of all consecutive operations until it reaches 9999. Removing the counted bills from the stacker will not reset the counting function (the sum is displayed on the screen).

2.4 MG and/or UV Detection Buttons (*for AB-1000 MG, AB-1000UV or AB-1000 MG/UV, only*)

Counts all bills and will detect counterfeit bills using different methods. While the AB-1000 MG will employ dual Magnetic Detection, and the AB-1000 UV will employ UV Fluorescent Detection, the AB-1000 MG/UV will employ both detection methods.

2.5 Automatic Start

The machine starts counting when bills are placed in the hopper.

2.6 Repeat Function “*batch*”

In the preset mode, the machine is restarted by taking out the batched bills from the stacker.

Part One

3. Operations

3.1 Power Up

Connect the power cord to the power source and turn the POWER switch ON; the unit will conduct a self-check by spinning the counting wheels several times. The counting number display will show “0” when the unit is ready.

3.2 Mode Selection

Select the function you want to use: “ADD” or “ BATCH”. Select “MG and/or UV” if you want to verify for counterfeit banknotes (for AB-1000MG, AB-1000UV AB-1000MG/UV only)

3.3 Default “Counting” Function

Having placed the bills correctly in the hopper, the optical sensor in the hopper plate will make the machine start counting automatically.



Slant the wad and place it in the hopper

- Slant the wad and place it in the hopper in order for the bills to be counted from top to bottom.
- The machine continues to operate until the hopper is empty or has reached the preset batching number.
- The counted number is displayed on the screen.
- The next counting operation will start again with “0” on the screen.

Part One

- Loading the hopper with additional bills, without removing previous notes accumulated on the stacker, will start the next counting operation automatically. The newly counted number will be added to the previous one.
- Additionally, the machine has two modes for counting in case it detects a counterfeit banknote (for MG, UV or MG/UV models, only). The first mode will show an “ON” signal in the counting display, which means that the counterfeit banknote will be included in the count.
- The second mode will show an “OFF” signal in the counting display, which means that the counterfeit banknote will not be counted in the total. To activate or deactivate this function, press the “RESTART” button until the counting display shows the desired “ON” or “OFF” setting.

NOTE: If your machine is the AB-1000, you may start the counting function immediately. Moreover, if your machine is of the type MG, UV or MG/UV, let it idle for 5 minutes to attain optimum operation performance.

3.4 MG and/or UV Functions

- Select the counterfeit detection function by pressing the MG and/or UV buttons (available in the models AB-1000 MG, AB-1000 UV and AB-1000 MG/UV, only).
- Having placed the bills correctly in the hopper, the machine will start automatically and will detect any suspicious bills. These bills will be found at the top of the stacker.

Part One

- **UV FUNCTION:** The UV function is able to check all types of banknotes. Put the ultraviolet sensitivity switch at the lowest level before turning the power on. The ultraviolet function will work at its best after five minutes. If the detection function is not working properly; adjust the switch to a higher level.
- **MAGNETIC FUNCTION:** The magnetic selection function is selected by pressing the MG button in the console.
- The machine will stop automatically if it detects a counterfeit note and a beep sound will be activated. This “beep” sound will last 3 seconds, giving the operator enough time to remove the suspicious bill, which will be the last one on the stacker. The number showed on the display will include the suspicious bill.
NOTE: If you do not want the suspicious bill to be included in the count, check section 3.3 for clear instructions on how to activate or deactivate this function.

3.5 “*Double Detection*” Functions

- The AB-1000 MG/UV incorporates the Ultraviolet Fluorescent System and the Magnetic Reaction System. You may turn both functions ON: MG and UV. If any, the suspicious bank notes will be found at the top of the stacker. A beep will alert the user of their presence.

Part One

3.6 “Add” Function

- Addition can be performed by pressing the “ADD” button until its indicator is lit up. In this case, removing the counted bills from the stacker will not clear the counted number on the display screen, and the counted number of the next bills will be added to the preceding one.
- To clear the counted number, press the “CLEAR” button.
If the machine stops with an error message displayed during the adding calculation, remove the cause of the error. Remove the bills in the stacker and inside the feeding rolls, if any.
- Then, the machine will restart counting with “ 0 ”, which is displayed on the screen by pressing the “RESTART” button. If restart is not pressed, the machine will not resume its normal operations.

3.7 “Batch” Function

- The preset function will be selected automatically by setting any optional number between 1 and 999 on the Batch Display; the optional number can be set by pressing the “+” button, the “-” button, or the “Batch” button. Every time the “Batch” button is pressed, one of the specified indications (10, 20, 25, 50, 100, Ø), will be indicated on the green batch display.
- Having loaded the hopper with bills, the machine will start counting and will stop when the counted number reaches the preset number (Batch Counting).
- To repeat the batch counting under the same preset number, the next counting operation can be started automatically by removing the preceding bills from the stacker.

Part One

- If the counted number does not tally with the preset number, the batch counter will show the quantity counted, which will be displayed on the screen with a blinking number.
- Keeping the “+” button pressed for more than 0.5 sec. will cause the set number to increase one by one, every 0.25 sec.
- When counting under the detection modes MG and/or UV (for MG, UV or MG/UV models, only), the machine will automatically stop when detecting counterfeit currency. By pressing the “Restart” button, the counting function will be resumed.

4. 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 MAINTENANCE ARE NOT COVERED BY THE WARRANTY

4.1 Cleaning the Optical Sensors

It is very important to clean all the sensors in the machine with a soft brush to avoid any paper particles or dust from sticking to the light-transmitter or the light-receiver sensors. This should be done every day. If necessary, the glass surfaces of the detectors may also be wiped with a soft cloth soaked with alcohol.

4.2 Cleaning The Inside of the Machine Periodically

It is necessary to clean the inside of the machine once a month. Unplug the machine and lift the top cover (where the handle is) to gain access to the interior.

4.3 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 plastic cover (when not in use).

CAUTION: “Do not change the position of the detectors and/or optical sensors.”

5. Troubleshooting Operational Problems

5.1 Avoiding Problems

Pre-select the bills you are going to count in the machine. Do not drop into the machine:

- Bills with metal clips
- Broken bills
- Bills with plastic transparent tape
- Washed bills

5.2 Jamming

- Before you start operating the machine make sure there are no foreign elements in any of the mechanisms of the machine, such as silica bags, spare parts, etc.
- To avoid jamming make sure you put the slanted wad correctly in the hopper. The bill facing you (in front) will go in first.
- The top of the stacker (#14) goes under the metal frame (# 15). The plastic cover should never be on top of the stacker (it will cause the machine to jam.) If the plastic cover is not in place, press gently until it fits its predetermined cavity.
- If jamming occurs make sure to turn off the machine. Remove carefully with a wood or rubber stick any bills inside the system. Look for any foreign material like paper clips, etc. Remove them, if any.
- Check the position of the plastic stacker cover (#14). It should go under metal frame (#15).

Part Two

- Check adjustment screw (# 22) on the back. The counter-clockwise direction will reduce friction. Make sure that you are positioning the bills correctly in the hopper. Try again.

5.3 When Counting Numbers are Wrong

- Turn the up and down adjustment screw (#22) clockwise to increase the friction.
- Adjust the banknote feeding tongue position until the counting numbers are right.
- Flip the black rubber tongue and use the other side (the original side may be worn out).

5.4 Additional Recommendation

- The models AB-1000 UV and AB-1000 MG/UV should never be placed under very intense lighting because the sensibility of the optical sensors may be affected.

Troubleshooting



Part Two

5.5 Error - Message Display

Message	Error	Solution
E-1	The left counting sensor is dirty or damaged	Clean or change the sensor
E-2	The right counting sensor is dirty or damaged	Clean or change the sensor
E-3	The magnetic head is obstructed	Clean or remove any object obstructing the head
E-4	The Fluorescent sensor or the ultraviolet lamp is damaged	Change the sensor or the lamp
E-5	The Auxiliary Hopper Plate or the Friction Rollers System is dirty	Clean the whole system
E-6	The preset sensor is full of dust or damaged	Clean or change the sensor

80% of all the Operational Problems may be caused by the dust and dirt inside the machine.

Keeping the machine clean may avoid malfunctions.

Part Two

6. Specifications

- **Ambient Temperature:** 0 ° C - 40 ° C
- **Ambient Humidity:** 25% - 80%
- **Feed System:** Roller Friction System
- **Hopper Capacity:** 100 old bills or 200 new bills
- **Stacker Capacity:** 100 old bills or 200 new bills
- **Size of Countable Bills:** 50mm X 100mm - 100mm X 185mm
- **Thickness of Countable Bills:** 0.06mm - 0.12mm
- **Counting Number Display:** Four Digits Red LED (large)
- **Batch Preset Number Display:** Three Digits Green LED (small)
- **Power Source:** Single Phase 110 V ± 10% RMS, 50 - 60 Hz. Also available in 220 V ± 10% RMS, 50 - 60 Hz
- **Power Consumption:** < 40 watts
- **Dimensions:** 226 mm X 223 mm X 155 mm
- **Weight:** Approx. 6.5 kg.
- **Counting Speed:** 1,000 bills/min

Specifications

