AccuBANKER®

User Guide

AB4200

Commercial Bill Counter
Basic or MGUV

Thank you for trusting *AccuBANKER* with your cash handling needs.

In order to optimize the performance of your equipment, we encourage you to thoroughly read this user guide prior to use.

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Introduction

The AB4200 Retail Grade Bill Counter is the perfect solution for a fast, accurate, and reliable banknote counting process. This equipment is designed to meet the most demanding applications in today's financial market.
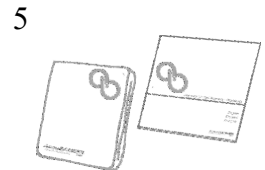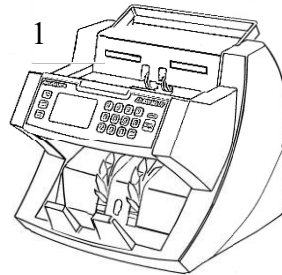
Three different models are available:

AB4200 – Bill Counter without counterfeit detection
AB4200 UV - Includes ultraviolet (UV) counterfeit detection function
AB4200 MG/UV - Includes magnetic (MG) and ultraviolet (UV) counterfeit detection functions

Box Contents

1. Bill Counter
2. Bill Guider
3. Power Cord
4. External Display
5. Printing Materials

1. Safety Instructions

⚠ Warning

🚫	Do not use this product in areas where it may be exposed to water or other liquids.
🔌	Unplug this product from the electric outlet before cleaning. Do not use liquid or aerosol cleaners. To clean, use a damp cloth.
🚫	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 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.
🚫	Do not operate the unit in areas with high temperature or high humidity since it may prevent it from working correctly.

⚠ 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 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 time, remove the power plug from the electric outlet.

1. Safety Instructions (continued)

- Follow all warnings and instructions marked on the unit.
- This product is meant to be operated in an indoor environment with proper ventilation.
- Do not place near direct sunlight, heat sources, or air conditioners.
- This product should only be operated with the power cord supplied and the type of power source indicated in this user guide. If you are not sure of the type of power supply in your location, consult your vendor or local power company.
- To avoid the risk of fire or electric shock, never push objects into the unit through the case slots or openings, since they may touch dangerous voltage points or shortcut parts. Do not disassemble the unit.
- Never spill liquids of any kind on the product.
- Unplug this product from the wall outlet and refer servicing to 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, or it has been exposed to rain or water*
    - If the product has been dropped or the case has been damaged*
    - If the product shows a noticeable change in performance

*Not covered under warranty

NOTE: Do not remove the "ground" prong from the power cord. It is a safety feature meant to protect the user from harm and the equipment from damage.

If the unit does not operate normally while following the instructions, adjust only those controls 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.

2. Equipment Overview

2.1 Part Description
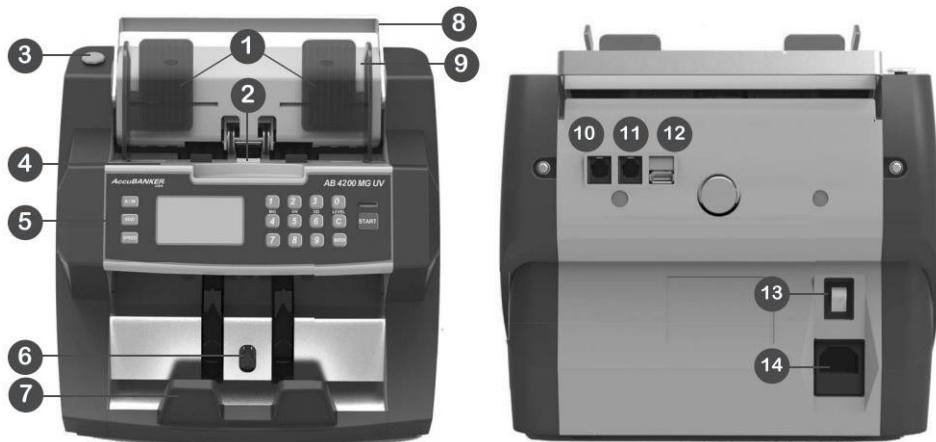
1. **Bill Guiders -** Aligns the bills to be counted
2. **Hopper Sensor -** Senses when bills are on the hopper tray
3. **Emergency Stop Button -** Stops the counting operation immediately
4. **Hopper Tray -** Bills are placed to be counted
5. **Display/ Control Panel -** View and ability to change settings
6. **Stacker Sensor -** Recognizes when a bill is on the stacker
7. **Stacker Tray -** Collects bills that have been counted
8. **Carry handle -** Used to carry and transport the equipment
9. **Feeding Gap Adjustment Knob -** Adjusts the thickness of the bill feeder
10. **Serial 1 port -** Install Updates & Technical Service
11. **Serial 2 port -** Auxiliary Display connection
12. **USB port -** Install Updates & Technical Service
13. **On / Off switch -** Used to tum the equipment on and off
14. **Power Jack -** Connection for the power cord

2. Equipment Overview (continued)

2.2 Control Panel Description

- **A/M:** Automatic or Manual starting mode
  By pressing the A/M button, the user can change between Auto (automatic) and MNL (manual) counting modes. In Auto, the default setting, the equipment begins counting automatically when the bills are placed on the hopper. In manual mode, the equipment will only begin counting once the START key is pressed.

- **ADD:** Adding function On / Off
  This function allows the equipment to add up all the consecutive counts made with this function ON.

- **SPEED:** Change the counting speed between 1200 -1500 -1800 bill/min
  Pressing the SPEED key repeatedly will display the three-speed options available. Press "START" when the desired speed option appears.
  *When the highest speed (1800 bill/min) is chosen, the MG function is not available to be selected by the user.

- **MG:** Magnetic Verification On/Off *(MG/UV model only)*
  Allows the equipment to analyze the magnetic features of each bill during the counting process. The equipment will stop counting if a bill is considered suspicious. The MG sensitivity can be adjusted by the user from 1-9, where 1 is the minimum and 9 is the maximum sensitivity.
  *When the MG function is active, the highest speed (1800 bills/min) is not available to be selected by the user.

2. Equipment Overview (continued)

2.2 Control Panel Description (continued)

- **UV:** Ultraviolet Verification On/Off *(UV and MG/UV model only)* This function allows the equipment to analyze the ultraviolet characteristics of each bill while counting. The equipment will stop counting if a bill is considered suspicious. The UV sensitivity can be adjusted from 1-9, where 1 is the minimum and 9 is the maximum sensitivity.

- **DD:** Bill Size Verification (Width) On/Off. This function allows the equipment to analyze the width of each bill while counting. The unit memorizes the width of the first and second bill as a reference for comparison. The equipment will stop counting if a bill with a different size is found. The DD sensitivity can be adjusted from 1-9, where 1 is the minimum and 9 is the maximum sensitivity.

- **LEVEL:** This allows the adjustment of the emission intensity of the counting sensors. It can be adjusted from 1-9, where 1 is the minimum and 9 is the maximum.

- **C key:** Used to clear (delete) the counted data from the display

- **BATCH:** Preset batch selection by pressing the BATCH key repeatedly, the preset batch value will change among 5, 10, 20, 50, 100, 200, or off.

- **START:** While in MANUAL mode, used to Start or Stop the count. Also used to accept and confirm batch selection as well as security functions sensitivities.

- **Numeric Keys:** Used to set up batch sizes manually and to enter the value for security function sensitivity levels.

2. Equipment Overview (continued)

2.3 Display Brightness Adjustment

The control panel's display may need to be adjusted (lightened or darkened) to read the screen more easily. Press the "7" key to enter into the BRIGHTNESS menu. Next, press "ADD" to increase or "SPEED" to decrease the brightness on the display. Press START to save the brightness level and return to count mode.

2.4 Adjusting Counterfeit Detection Features (MG-UV-DD-LEVEL)

The sensitivity level of the detection functions may be adjusted (increased or decreased) from 1-9, where 1 is the lowest sensitivity and 9 is the highest sensitivity.

To modify the values, press the key for the desired security function for 3 seconds until the display shows the current sensitivity value for the selected feature. Use the numeric keypad to select a new value. Press START to save the selection and return to counting mode.

NOTE: If the equipment is frequently reporting error messages, related to any security feature (MG - UV - DD), the current sensitivity setting for these functions may need to be adjusted as they may be too high (sensitive) for the current bills being counted.

1	2	3
4	5	6
7	8	9

SENSITIVITY

UV: 4

START
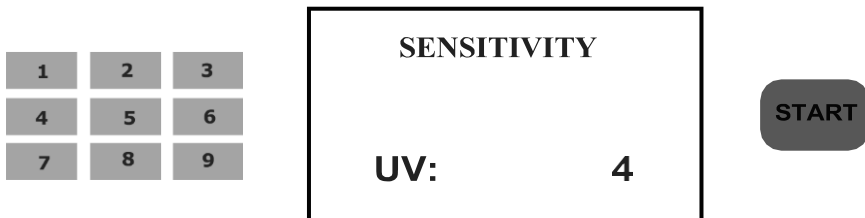
2. Equipment Overview (continued)

2.5 Counting Polymer Bills

The default configuration of the equipment is set to count paper bills (such as US bills). PP appears on the top right corner of the display to indicate that the equipment is set to count paper bills. If the user needs to count polymer bills (such as Canadian bills), this setting must be changed. Press the "5" & "8" keys together for 3 seconds until the display changes from PP to PL (polymer). Pressing the "5" and "8" keys again will change the setting back to PP (paper) mode.

If PL mode has been selected, we recommended activating the DD function (see section 2.4 above) to ensure the accuracy of the counting result. The thickness gap may also need to be reduced (see section 3.3).

MG and LEVEL functions are not available in PL mode.

3. Getting Started

3.1 Installation

Select an appropriate workspace that is clean, flat, and leveled. The equipment should never be placed near strong sources of light, heat sources, or air conditioners. Please do not install the equipment where its weight cannot be supported. Plug the power cable to the back of the unit and into the wall power outlet.

3.2 Bill Guider Installation
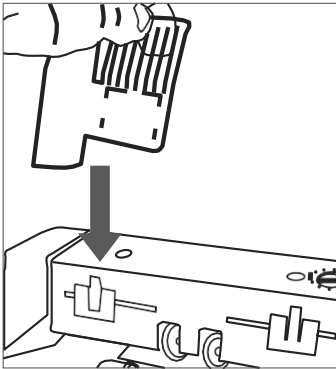
1. Align the guider with the latch mechanism in the equipment.
2. Insert the guider into the latch until it "clicks" into position.
3. Repeat steps 1 and 2 with the other guider.
4. To remove the guider, push it toward you while pulling it out from the latching mechanism.

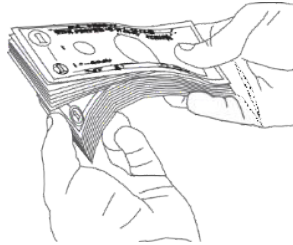# 3. Getting Started (continued)

3.3 Bill Placement

A. Avoid counting wet, excessively dirty, folded, or damaged bills.
B. Check for foreign objects mixed up with the bills such as paper clips, rubber bands, pieces of paper, etc.

C. If counting new bills, fan them lightly since they often stick together.

D. Position the bills neatly on the hopper tray to ensure an error-free operation.

4. Operation

4.1 Counting Operation

- Turn on the equipment by pressing the power switch.
- The unit will immediately proceed with a self-check routine. If any error message is reported, see section 5. Warning and Error Messages for more information.
- Select the desired detection functions MG-UV-DD *(MG - UV only available on models with counterfeit detection)*.
- Set up other optional functions such as SPEED, BATCH, etc.
- Place the bills in an orderly manner on the hopper tray and the equipment will start counting automatically.

NOTE: If the unit is in MANUAL mode, press START to begin counting.

4.2 Counting errors

If there are continuous counting errors proceed to:
- Make sure the bills are positioned neatly on the hopper tray.
- Verify that the counting sensors are not affected by particles of dust, debris, foreign objects, etc.
- Make sure that the thickness adjustment gap is properly adjusted for the bills being counted (whether old, new, paper, or polymer).
- If the equipment displays continuous error messages related to the MG and UV functions, consider reducing the sensitivity.
- Refer to section 5. Warning and Error Messages for more information.
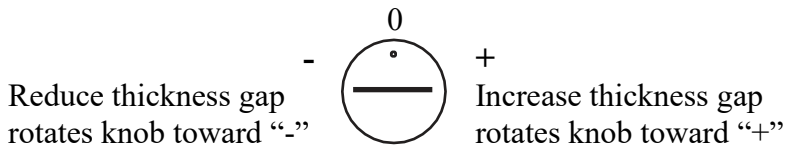
4. Operation (continued)

4.3 Thickness Knob Adjustment (Feeding Gap)

If there are frequent counting errors and/or the bills do feed into the equipment smoothly, the thickness knob needs to be adjusted.

The adjustment screw is located on the top-right corner of the unit. If the screw is turned towards (-), the opening where bills enter the equipment from the hopper tray narrows, making the bills run tighter. Turning the screw toward (+) widens the gap, making the bills run more freely.

NOTE: For new bills, it is recommended to leave the gap narrow. For used and worn bills, it is recommended to widen the gap.

    a.   For new (thinner) bills, adjust toward "-" to reduce the gap.
    b.   For used (thicker) bills, adjust toward "+" to increase the gap.
    c.   Small adjustments towards the "+" direction work best.

<div align="center">

0

-                +

Reduce thickness gap   Increase thickness gap
rotates knob toward "-"   rotates knob toward "+"

</div>

4.4 Emergency Stop button

The emergency stop button is a safety feature that immediately stops the equipment from performing any operations when pressed. If the emergency button is pressed, the equipment must be turned OFF and ON again to resume the counting operation.

Avoid accidentally pressing the Emergency button during a count.

5. Warning and Error Messages

During operation, the unit may report some error messages to notify the user of an incident or error detected. The table below describes the possible errors and how to deal with them. If the error messages persist please contact Technical Support.

ERROR	CAUSE	SOLUTION
UV alarm	Suspicious UV feature	- Remove the suspicious bill - Reduce the UV sensitivity
MG alarm	Suspicious MG feature	- Remove the suspicious bill - Reduce the MG sensitivity
Chain error	Two or more bills passed closely together	- Adjust thickness adjustment knob - Verify the bill's fitness quality
Double note	Two or more bills passed together	- Fan the bills - Adjust thickness adjustment knob
DD alarm	Check the size of the bill (width)	- Verify the specific bill - Reduce the DD sensitivity
Half error	Check for a damaged bill	- Remove the specific bill
Reset unit	The emergency stop is activated	- Turn the unit OFF and ON again
Hopper sensor error	Hopper sensor problem or bills placed on the hopper before turning the unit on	- Clean the sensor - Get in contact with Tech Support
Stacker sensor error	Stacker sensor problem or bills on the stacker before turning the unit on	- Clean the sensor - Get in contact with Tech Support
Count sensor R	Right counting sensor problem	- Clean the sensor - Get in contact with Tech Support
Count sensor L	Left counting sensor problem	- Get in contact with Tech Support

6. Specifications

Temperature:	32° - 104°F (0° - 40°C)
Humidity:	25% - 80%
Display:	LCD
Counting Speed *(new bills)***:**	1,200 - 1,500 - 1,800 bills/minute
Feeding System:	Roller Friction System
Feeding Type:	Front-loading
Hopper Capacity:	400 bills (new bills)
Stacker Capacity:	200 bills (new bills)
Dual Voltage:	Dual Voltage
Power Source (INPUT):	100 - 240 VAC 60/50 Hz
Power Consumption:	30 Watts Max. (3 Watts Standby Max.)
Accepted Banknote Dimensions *(L x W):*	4 x 1.97 – 7 x 3.11 in 10.2 x 5 – 17.8 x 7.9 cm
Accepted Banknote Type*:*	Paper, Polymer, etc.
Certifications:	UL, NOM, CE
Product Dimensions *(L x W x H):*	10.8 x 10 x 9.8 in 27.5 x 25.6 x 24.9 cm
Product Weight:	13.85 lb (6.28 kg)

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