

Owner's Manual



BILL COUNTER WITH VALUE COUNTING



RBC-4500

Thank you for purchasing the Royal Sovereign Bill Counter with Value Counting, RBC-4500. This manual will provide you with safety information, instructions for optimal use, and proper care and maintenance for your product. Please read this manual carefully before operating.

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SAFETY INSTRUCTIONS

When using this machine follow these basic safety precautions to reduce risk of fire, electric shock, or injury.

WARNING

1. Only use the power cord that comes with the machine. Using a different power cord may result in electric shock, fire, or cause serious damage to the machine. Plug the power cord into a properly grounded wall outlet.
2. Do not use the machine if the power cord is damaged. This may result in electric shock, fire, or other hazards.
3. Do not place the machine in an area where it may be exposed to water or other liquids.
4. To reduce the risk of electrical shock, do not take apart the machine. When service or repair is needed bring to a qualified service repair technician.
5. When unplugging the power plug, grip the plug to pull it out. Pulling the cord may result in electric shock, fire, or damage to the machine.
6. Do not place objects on the power cord and do not bend it excessively. This may result in electric shock, fire, or other hazards.

CAUTION

1. Before dusting the machine with a brush, unplug the machine from the wall. Do not use liquid or aerosol cleaners on the machine.
2. Do not use the machine in areas with high temperature or high humidity. This may result in the machine not working properly.
3. When not using the machine for long periods of time, unplug the power cord from the outlet.

Read & Fully Understand This Owner's Manual Before Using This Machine.

BOX CONTENTS



Bill Counter



Power Cord

PRODUCT VIEW



QUICK START GUIDE

1. Plug the power cable into the back of the unit and into the wall power outlet.
2. On the back of the machine, flip the power switch to power on.
3. The machine will go through an automatic self-diagnostics test to ensure accurate bill counting. The counting wheels in the bill counter will spin several times to ensure it is ready for use. When the machine has completed its test run and "0" displays on the machine, it is now ready for counting.
4. Place your currency into the hopper to automatically begin counting.

For More Detailed Instructions, Go To Page 6



CONTROL PANEL



Counterfeit Detection (CF Key)

UV Counterfeit Detection

Counterfeit bills often use white or bleached paper, which will glow under ultraviolet light. To use the ultraviolet counterfeit detection press the “CF” button once. When the UV detector finds a counterfeit bill, the machine will stop counting to allow removal of the counterfeit bill and display the error code on the preset display.

Magnetic Counterfeit Detection

If the magnetic detector does not find the presence of magnetic components that are standard in authentic bills, the machine will stop counting to allow removal of the counterfeit bill and display the error code on the preset display. To use the magnetic counterfeit detection press the “CF” button twice.

Ultraviolet and Magnetic Counterfeit Detection

To count with both UV and MG counterfeit detection, select the “CF” button three times.

Dimensional Detection (DD Key)

The dimension detector measures the width of the center of each bill by using infrared light. If the detector finds an odd sized bill, the machine will stop counting to allow removal of the bill and display the error code on the preset display. To use the dimensional counterfeit detection press the “DD” button once.

Display Key

Select the display key to view the count record. By pressing “DISPLAY”, you can view the total number of bills and values of each denomination along with a grand total.

PRODUCT OPERATION

1. **Attach power cable to back of machine, plug into a three prong outlet, and turn power switch on.**

- The unit will conduct an automatic self-diagnostic test to ensure accurate counts.
- After five seconds of the counting wheels spinning, the screen will display a "0".
- If there is a problem, the preset display will show an error code. (See ERROR CODE DISPLAYS -LOCATED ON PAGE 10.)

2. **Select bill counting settings:** Before counting, select counting settings that are related to your counting needs:

- **ADD mode:**

The ADD mode displays the cumulative total of all bills counted. To turn ADD mode on, press "ADD".

- **BATCH mode:**

The machine is preset to common counting mode. To count bills in batches, press the "BATCH" key. Batching is preset to 100 bills. To change the batch amount, use the keypad to enter a batch number between 1 and 999. Press "Enter/Reset" to save the setting. Press the "BATCH" key again to clear.

- **Auto and Manual Start Modes:**

The machine is preset to automatically start counting bills once placed into the hopper. To change to manual start mode, press the "MNL" key, insert the bills into the hopper, and press the "Enter/Reset" key. Press the "MNL" key again to return to auto mode.

- **Value Counting:**

The machine will total the number of bills by denomination and total value by denomination as well as provide a grand total. Each denomination must be counted separately. To operate press the "ADD" key. Then on the keypad press the denomination to be counted (\$1 - \$100). After denomination is counted press the next denomination to be counted and continue until all denominations needed to be counted are complete. Then press the "DISPLAY" key to view the total number of bills and values of each denomination along with a grand total.

Single denomination counting-

Select denomination to be counted from the Numeric/Denomination keypad

Place bills in hopper.

Total number of bills and denomination value will show on display screen after bills are counted.

Multi-Denomination Value Counting-

Press the "ADD" key.

Select denomination to be counted from the Numeric/Denomination keypad

Place bills in hopper.

Select next denomination and repeat process above.

After all denominations are have been counted hit the "DISPLAY" key and the number of bills and value for each denomination along with a grand total will show on the display screen.

PRODUCT OPERATION (CONTINUED)

- **Counterfeit Detection Methods**

All methods are automatically on when the unit is powered up. To manually turn off any or all methods see (CONTROL PANEL - LOCATED ON PAGE 5.)

- **Menu Settings**

Press "MENU" key, you will see: **1. SPEED SET 2. LEVEL SET 3. WARN COUNT 4. DATE&TIME 5. BEEP 6.PRINTER INTERFACE**, press "▲ ▼" keys and select the item you need, then press RESET- ENTER.

1. SPEED SET

Press the RESET-ENTER key, there are three speeds: SPEED 1,900pcs/min, SPEED2, 1,200pcs/min, SPEED3, 1,400pcs/min. Press the number keys: 1,2,3 or press "▲ ▼" key and select the speed, then press RESET-ENTER.

2. LEVEL SET

Press the RESET-ENTER key and enter the setting, it will show **1. UV LEVEL 2. MG LEVEL 3. DD LEVEL 4. DOUBLE LEVEL**. Press "▲ ▼" key and select the item you need, the press RESET-ENTER. Each sensitivity has 5 levels: (1.low, 3.middle, and 5.high), press number key 1-5 and select the sensitivity level, then press RESET-ENTER key.

3. WARN COUNT SET

Press the RESET-ENTER key and enter the setting, Press "▲ ▼" key and select the item you need (YES means the fake note is included in the amount; NO means the total amount doesn't include the fake notes), press RESET-ENTER.

4. DATE & TIME

Press the RESET-ENTER key and enter the setting, it displays "YYYY-MM-DD HH:MM:SS", press the number keys to set the date and time, press the "▲ ▼" key and select the set item, the press the RESET-ENTER key.

5. BEEP

Press the RESET- ENTER key and enter the setting, it will display **1. KEY BEEP OFF 2. KEY BEEP ON 3. WARNING BEEP OFF 4. WARNING BEEP ON**. Press "▲▼" key and select the set item, then press the RESET-ENTER key and quit.

6. PRINTER INTERFACE

Press the RESET-ENTER key and enter the setting, **1. 4800bps 2. 9600bps 3. 14400bps 4. 19200bps 5. 28800bps 6. 57600bps**, press "▲ ▼" key and select the item, then press the RESET-ENTER key and quit.

3. **Place bills into the hopper to begin counting; press "ENTER/RESET" if in manual mode**

MAINTENANCE OF THE MACHINE

WARNING: Before doing any dusting, turn the power switch off and disconnect the power cord from the machine. 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. It is important to clean the inside of the machine occasionally. Unplug the machine and lift the top cover to gain access to the interior.

If necessary, the glass surfaces of the detectors may also be wiped with a soft cloth dampened with alcohol.

To get the best results out of your bill counter, Royal Sovereign recommends using **Royal Sovereign Cleaning Cards (RBC-CLN)** to remove dirt, dusts, oils, and other contaminants from bill counters. With the machine on, simply run the cleaning card through the machine like a bill. This cleaning card will run through and clean the sensors of dirt and other contaminants. Cleaning cards are recommended to be used after every 100 cycles.

CAUTION: DO NOT CHANGE THE POSITION OF THE DETECTORS AND/OR OPTICAL SENSORS

SPECIFICATIONS

Model	RBC-4500
Power	single-phase 100~240V 50/60Hz (1±5%)
Power Consumption	<50W
Temperature Range of Operation	0~40°C / 32~104°F
Hopper Capacity	300 notes
Counting Speed	900, 1,200, and 1,400 bills per minute
Accepted Note Size	4.3" × 2.0" ~ 9.8" × 7.7" / 110 × 50~185 × 90(mm)
Display Range	Counting: 4 Digits / Batch Counting: 3 Digits
Dimensions	10.60 x 9.80 x 7.70 in (269 × 249 × 196 mm)
Net Weight	10.10 lbs. / 4.58kg

TROUBLESHOOTING

Note: when counting and detecting is not accurate, please check the machine as follows:

Problem	Reason	Solution
Bills get damaged	Hopper Tension is too tight	To loosen the tension, please turn the bill thickness adjuster (located on the top of the machine) one notch to the right (+). Repeat bill counting and adjust if problem continues.
Machine runs slow / Bills not feeding properly	Hopper Tension is too tight	To loosen the tension, please turn the bill thickness adjuster (located on the top of the machine) one notch to the right (+). Repeat bill counting and adjust if problem continues.
Bills eject from the machine	Hopper Tension is too loose	To tighten the tension, please turn the bill thickness adjuster (located on the top of the machine) one notch to the left (-). Repeat bill counting and adjust if problem continues.
Display shows miscount	Hopper Tension is too loose	To tighten the tension, please turn the bill thickness adjuster (located on the top of the machine) one notch to the left (-). Repeat bill counting and adjust if problem continues.
Display shows "DOUBLE" or "CHAIN"	Hopper Tension is too loose	To tighten the tension, please turn the bill thickness adjuster (located on the top of the machine) one notch to the left (-). Repeat bill counting and adjust if problem continues.
Main motor and/or vane motor does not run	Hopper plate sensor is not working correctly	Clean the hopper with a soft brush, use compressed air to clear out the dust, or use a Royal Sovereign Cleaning Card.
Display shows "0" but is not counting bills	Counting sensor is not working correctly	Clean the counting sensor by blowing compressed air throughout the stacker and vane area of the unit.

ERROR CODE DISPLAY AND SOLUTIONS

The display may show some error code in counting, which means there are some problems with the machine. Refer to the chart below to solve the error.

Error Code	Trouble Position
UV CHECK FAIL	UV Sensor
NL CHECK FAIL	Left Counting Sensor
NR CHECK FAIL	Right Counting Sensor
IRL CHECK FAIL	Left Double-Notes Sensor
IRR CHECK FAIL	Right Double-Notes Sensor
STACK CHECK FAIL	Note-Receiving Sensor
HOPPER CHECK FAIL	Note-Feeding Sensor
ENCODE disc CHECK FAIL	Width Sensor

Error Code	Reason and Troubleshooting
HALF	Half Sheet. Take the notes from the stacker. Press the "RESET" key to continue counting again.
DOUBLE	Double-notes. Take the notes from the stacker. Press the "RESET" key to continue counting again. If EA2 often appears, please adjust the position of the adjustment knob.
CHAIN	Jointed notes. Take the notes from the stacker. Press the "RESET" key to continue counting again.
JAM	Jammed notes. Turn off the machine. Remove the jammed note from the machine.
UV, MG, DD	Suspect note has been detected. Remove the note and press the "RESET" key to continue counting.

Most of the errors listed above may be caused by dust or dirt on the inside of the machine. Keeping the machine clean is highly recommended (Please refer to MAINTENANCE OF THE MACHINE - LOCATED ON PAGE8).

ONE YEAR LIMITED WARRANTY

Royal Sovereign International, Inc. warrants this product to be free from defects in material and workmanship for a period of one (1) year. This warranty is extended to the original purchaser only.

This warranty only covers products that are properly installed, properly maintained, and properly operated in accordance with the instructions provided. This limited warranty does not cover any failures or operating difficulties due to normal wear and tear, accident, abuse, misuse, alteration, misapplication, improper installation, or improper maintenance and service by you or any third party.

Returned product will not be accepted without a Return Authorization number. To request a Return Authorization number, please visit us at www.royalsovereign.com. All transportation costs for the return of damaged product or parts will be the responsibility of the purchaser. Return defective product, in original packaging, to the address below.

Royal Sovereign International, Inc. requires reasonable proof of your date of purchase from an authorized retailer or distributor. Therefore, you should keep your receipt, invoice, or canceled check from the original purchase. The limited warranty shall be limited to the repair or replacement of parts which prove defective under normal use and service within the warranty period.

Royal Sovereign International, Inc. (and its affiliated companies) SHALL HAVE NO LIABILITY WHATSOEVER TO PURCHASER OR ANY THIRD PARTY FOR ANY SPECIAL, INDIRECT, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above exclusion and limitations may not apply to you.

ROYAL SOVEREIGN INTERNATIONAL, INC.

2 Volvo Dr., Rockleigh, NJ 07647 USA

TEL: +1) 800-397-1025

Email: info@royalsovereign.com