

Owner's Manual



BILL COUNTER WITH COUNTERFEIT DETECTION



RBC-3100

Thank you for purchasing the Royal Sovereign Bill Counter with Counterfeit Detection, RBC-3100. 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



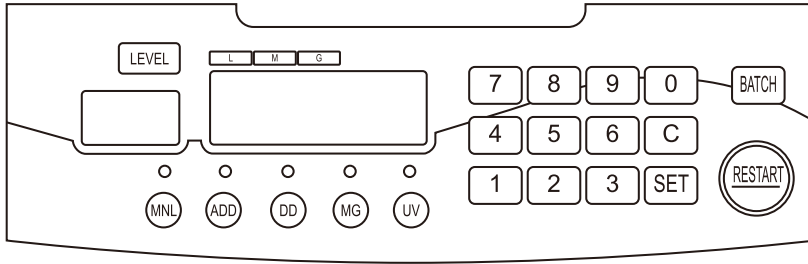
QUICK START GUIDE

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



UV Counterfeit Detection

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

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. The preset display will show the corresponding error code. To use the magnetic counterfeit detection, press "MG". To adjust the magnetic sensitivity level, press "LEVEL" for low, medium, and high. To resume counting, simply press "RESTART".

Dimensional Detection

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 dimensional counterfeit detection, press the "DD" key. The dimension (DD) counterfeit detection sensitivity level is preset on level 1 (highest level). To adjust width sensitivity level, press "SET" and select 1-5, 1 for lowest, 5 for highest.

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, which automatically counts all bills placed into the hopper. To count bills in batches, press the "BATCH" key. Batching is preset to 100 bills. To change batch amount, press "C" to clear, and use the keypad to enter a batch number between 1 and 999. Under the batch counting mode, once the hopper is loaded, the machine will start counting and will stop when the counted quantity reaches the preset batch quantity. To repeat the batch counting operation under the same preset batch quantity, simply remove the counted banknotes from the stacker. The machine will batch the next group of banknotes under the same settings. If you wish to keep batching without removing the banknotes from the stacker, press the "RESTART" button.

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.)

- **AUTO or MANUAL Start**

The machine is preset to automatically start counting bills once placed into the hopper. To change to the manual start mode, press "MNL", and insert the bills into the hopper, and press "RESTART".

- **Bill Counting Mode**

The bill counting mode is preset on type 2. To adjust the counting mode, press "SET" twice. Preset display window will display "F". Use the keypad to select a type 1-3.

- Type 1 will not count counterfeit or irregular bills and will stop counting to allow for the removal of bill(s) in question, and allow re-insertion of all bills into the hopper to restart counting from zero.
- Type 2 will stop counting when a counterfeit or irregular bill is detected and include these bills in the master count (shown on the count display)
- Type 3 will count counterfeit or irregular bills and continue counting, unless there is a jam error (either EA2 or EA3). In this case, bill(s) in question are counted, and the machine will stop to allow re-insertion of all bills into the hopper to restart counting from zero.

3. **Place bills into the hopper to begin counting; press "RESTART" 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-3100 |
|--------------------------------|---|
| 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 | 1,200 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 | 270 × 250 × 195 mm (10.60 × 9.80 × 7.70 in) |
| Net Weight | 10.10 lbs. / 4.60kg |

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 | 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. |
| Machine stops and shows EA2, EA3 | The position of the thickness adjustment knob is not correct. | Adjust the adjustment knob counterclockwise (towards "-"). |
| After reaching the batch number, the machine does not start when the notes are taken off the stacker. | Too much dust on stacker sensor | Clean the sensor |
| Counting display window displays "0" but does not count. | Dust on the counting sensor | Clean the sensor |

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 | Reason |
|------------|--|
| E01 | Left Counting Sensor |
| E02 | Right Counting Sensor |
| E03 | Left Double-Notes Sensor |
| E04 | Right Double-Notes Sensor |
| E05 | Note-Receiving Sensor |
| E06 | Note-Feeding Sensor |
| E07 | Width Sensor |
| E08 | UV Sensor |
| EA0 | Half sheet. Eliminate the note. Press RESTART to count again. |
| EA1 | Different width or different version notes. Press RESTART to count again. |
| EA2 | Double-notes. Put the notes from the stacker onto the hopper again, press RESTART to count again. If EA2 often appears, please adjust the position of the bill thickness adjuster. |
| EA3 | Joined notes. Put the notes from the stacker onto the hopper again, press RESTART to count again. |
| EC4 | UV note or questionable note. Eliminate this note, press RESTART, and count again. |

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 PAGE 8).

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.

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