

# Owner's Manual



## BANK GRADE QUICK SCAN COUNTERFEIT DETECTOR



RCD-BG1

Thank you for purchasing the Royal Sovereign Bank Grade Quick Scan Counterfeit Detector, RCD-BG1. 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

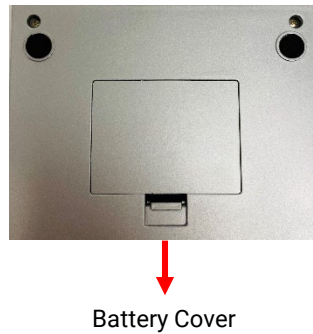
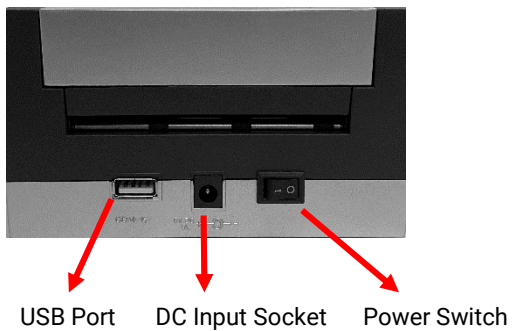
When using this machine follow these safety precautions to reduce risk of fire, electric shock, or injury.

## WARNING

1. Do not operate the machine in areas with high temperature or high humidity since it may cause the unit to malfunction.
2. Do not disassemble this product. Incorrect re-assembly can cause electric shock. If repair is required, please contact Royal Sovereign International.
3. Before turning on the power, please make sure that there are no objects obstructing the operation of the rollers and wheels.
4. Unplug this product from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning the cover.
5. To prevent shock hazard, do not disconnect the plug of the AC/DC adapter when hands are wet.
6. To prevent fire or short circuit, unplug the unit when moving it to another position.
7. Hold the plug when disconnecting the unit from the power outlet. Do not pull the cord as it can be damaged.
8. Keep the AC/DC cord from being damaged. Avoid placing heavy objects on the cord.
9. The unit should be connected to a power supply through the AC/DC adapter.
10. Keep the battery storage clean and in a dry ventilation room.
11. When the battery is unused for a long period of time, please take the battery out from the machine as it should be recharged once every 6 months.
12. Do not change the position of the optical sensors.

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

# PRODUCT VIEW



# PRODUCT OPERATION

## 1. Turning the machine on and off:

- Connect the power adapter to a 110V or 220V outlet, then connect to the machine.
  - NOTE: Insert optional lithium battery
- Once connected, flip the power switch button on the back of the unit to turn on the machine.
  - The indicator light will light up and the machine will run a self test.
  - If the test is successful, the display window will show two "0"s on the sheets display window and the value display window.
- Flip the power switch button to turn off the machine.

## 2. Function Settings:

- **CLEAR/DIRECTION:**
  - Hold the "CLEAR/DIRECTION" button for three seconds to choose the exiting direction of the valid banknotes. The indicator light will change and show the direction.
  - The denotation of direction will be shown on the left part of the display. An up arrow means the valid banknote will go out from the back of the machine. A down arrow means the valid banknote will retreat and come back to you where you inserted the banknote.
- **REPORT:**
  - Press the "REPORT" button to check the pieces of each denomination.
  - After finishing detecting the banknotes, press the "REPORT" button to enter the report mode. When checking the notes detection record, you can press the button again and again to display records for different denominations and its pieces.
  - The value sequence is: Total Value, \$100, \$50, \$20, \$10, \$5, \$2, \$1

# PRODUCT OPERATION (CONTINUED)

## Report Screens

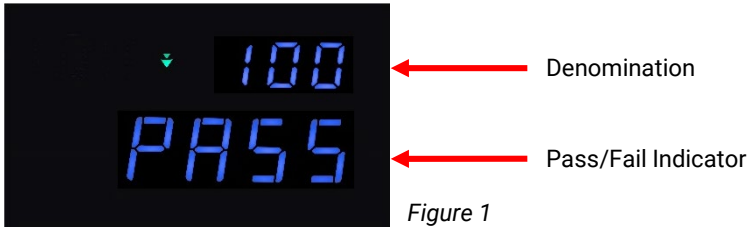


Figure 1

Figure 1: This screen shows what appears after bills are accepted. It will tell the user Pass/Fail and the denomination of the bill that goes through.

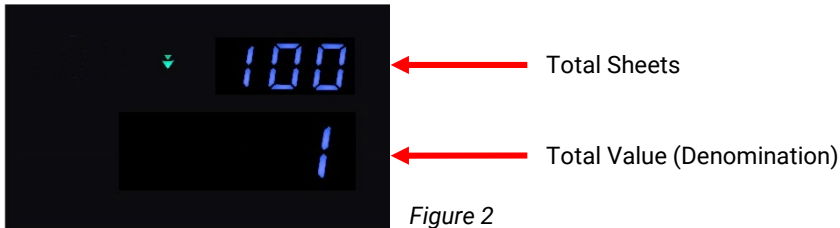


Figure 2

Figure 2: After detecting notes, the user can press the “REPORT” button to check the pieces of each denomination. Figure 2 shows an example of a report screen for the one-dollar denomination. The screen above shows the user that 100 one-dollar bills have passed through the machine.

# PRODUCT OPERATION (CONTINUED)

3. Inserting the banknotes correctly
- Please insert the banknotes as shown in the pictures below. The correct way is on the left side of the insertion. If a banknote is incorrectly inserted, the machine will refuse it and alert the user that an error has occurred. This machine is equipped with 4-Way Orientation as shown below. This allows the user to insert the banknote in any direction they want.



✓  
CORRECT



✗  
WRONG



✗  
WRONG

## PRODUCT OPERATION (CONTINUED)

### 4. Detecting

- After a note is inserted, the detecting system will check it and then alert the user with an audible signal, indicating whether the banknote is genuine or suspicious. Genuine notes will pass through the machine or return without alert. These banknotes will be added to the total value.



- Suspicious or counterfeit notes will be rejected with two beeps and the display will show the error code. These banknotes will not be added to the total value.



### 5. Clear Report

- Press the “CLEAR/DIRECTION” key to clear the total sheets and the total value.



## ERROR CODE DISPLAY AND SOLUTIONS

If the following error code is shown on the display window during the course of detecting, you can handle them as per the error type when the machine is stopped.

Error Code	Reason	Solutions
E0 ~ E11	Sensor Error	<ul style="list-style-type: none"> <li>• A note was jammed in the machine. Turn off the power and remove the banknote carefully.</li> <li>• If the display shows this error, but there is no note in the machine, please clean the sensors.</li> </ul>
EH/EC	Size Error	Please insert the note correctly. As shown in diagram on page 6.
EJ	Skew Error	Please insert the note correctly. As shown in diagram on page 6.
FAIL	Counterfeit Error	Please recheck the note. Could be a suspect note if error continues to occur.

# TROUBLESHOOTING

Problem	Solution
<b>Machine alarm keeps beeping</b>	<ul style="list-style-type: none"><li>• Check whether the DC output is within the specified range.</li><li>• Check whether the supply plug is properly connected.</li><li>• Check whether the battery is sufficient to work.</li><li>• Clear the dust on the sensors.</li></ul>
<b>Banknote is jammed</b>	<ul style="list-style-type: none"><li>• Please open the top cover to remove the banknote.</li></ul>

If error codes still occur, please contact Royal Sovereign Customer Support: TEL: +1) 800-397-1025

# MAINTENANCE

This machine is a precise financial detecting machine that needs periodic maintenance:

- Periodically check the voltage of the power supply to ensure that the voltage is within the specified range.
- Keep the banknote detector in a ventilated place and away from strong sunshine.
- Periodically clean the sensors. Use a piece of cotton within a small amount of alcohol to clean all sensors, rubber wheels, and rubber synchronous belt. Keep the surface of sensors away from sharp and hard articles to avoid damage.
- Do not attempt to disassemble the detector. If errors occur, please contact Royal Sovereign Customer Support.

# SPECIFICATIONS

<b>MODEL</b>	<b>RCD-BG1</b>
Humidity:	25% - 80%
Dimensions	5.63" W x 5.04" D x 2.95" H 143 x 128 x 75 (mm)
Net Weight	1.39 lbs.
Power Supply	DC9V
Optional Battery	Lithium Battery
Power Consumption	5W
Display	Large Blue LED Display
Detecting Speed	<0.5 Seconds/Banknote
Currency	USD
Counterfeit Detection Methods	Magnetic, Infrared, Paper Quality, Size, Thickness and Density Detection

## 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](http://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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