

# KBR-1500

One-Pocket Mixed Denomination Money Counter



## User Manual

## Table of Contents

This manual contains important information on safety measures and operational features of the KBR-1500 one-pocket currency discriminator. Please read it carefully before operating your machine and keep it for future reference. While every effort has been made to include all features in this user manual, the specifications stated may not reflect all features of the latest software versions. If you have any questions about your Kolibri Bill Counter and its operation, please contact technical support at [www.kolibriusa.com/contact/](http://www.kolibriusa.com/contact/).

<b>1. Safety Notes and Product Overview</b>	
1.1 Important Safety Notes	1
1.2 Product Specifications	1
1.3 Box Contents	2
1.4 General Views	3
1.5 Control Panel	5
1.6 Home Screen	6
<b>2. Getting Started</b>	
2.1 Powering Up	7
2.2 Hopper Loading Procedure	7
<b>3. Operating Instructions</b>	
3.1 Selection of the Modes and Functions	9
3.2 Auto and Manual Start Function	9
3.3 Mix Mode	10
3.4 Sort Mode	11
3.5 Count Mode	12
3.6 Add Function	13
3.7 Batch Function	14
3.8 Add+Batch Function	15
<b>4. Post-Count Functions</b>	
4.1 Report	16
4.2 Print	16
<b>5. Menus</b>	
5.1 Main Menu	17
5.2 System Menu	18
5.3 Service Menu	19
<b>6. Maintenance and Troubleshooting</b>	
6.1 Maintenance	20
6.2 Adjusting the Feed Gap	23
6.3 Calibration Procedure	25
6.4 Troubleshooting	28
<b>7. Warranty</b>	
7.1 Warranty Information	30
7.2 Contact Information	31



**PROP 65 WARNING.** This product may contain chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.  
<https://oehha.ca.gov/>

## 1. Safety Notes and Product Overview

### 1.1 Important Safety Notes:

When using this product, basic safety precautions should always be followed, including the following:

- Do not use this product in areas where it may be exposed to water or any other liquids.
- Unplug this product from the wall outlet before cleaning. Use a damp cloth or air duster to clean the unit.
- To avoid the risk of electrical shock, do not disassemble this unit. Disassembling will expose you to dangerous voltages and other safety risks. Incorrect reassembly may cause electrical shock when the unit is powered.
- Only use this product with the included power cord. Plug the power cord into a properly grounded wall outlet. Do not remove the grounding pin from the power cord. Failure to properly ground the unit can result in severe injury or fire.
- Make sure the device is placed on a flat surface. Do not operate the unit in areas with high temperature, humidity, or smoke as these conditions may impede performance.
- This product is designed for indoor use in a well-ventilated environment. Keep the unit away from direct sunlight and strong magnetic fields which may interfere with the counterfeit detection sensors.
- When not using the unit for an extended period, disconnect the power cord from the wall outlet.

### 1.2 Product Specifications:

Counting speed: Adjustable 800 and 1000 bills/min  
 Hopper capacity: 500 bills  
 Stacker capacity: 200 bills  
 Weight: 13.1 lbs. (5.9 kg)  
 Dimensions: 9.25" x 10.82" x 9.25" (235mm x 275mm x 235mm)  
 Power supply: AC 100-240 V, 50/60Hz,  
 Power Consumption < 50W

### 1.3 Box Contents:

- KBR-1500
- External Display
- Power Cable
- Bill Guides
- Calibration Card
- Dust Cover
- Cleaning Cloth



### 1.4 General Views:

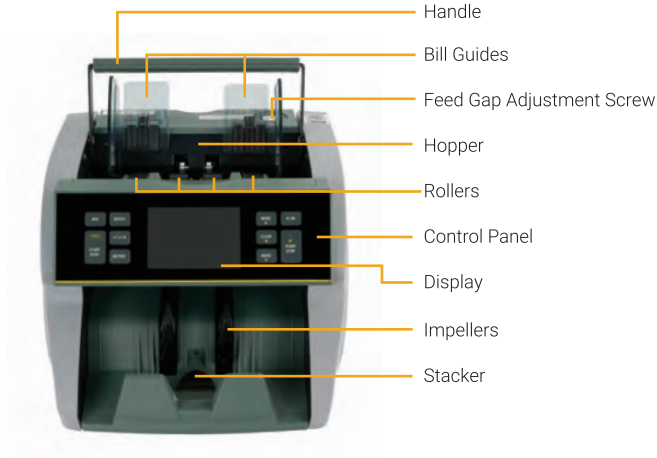


Figure 1. Front and Top View

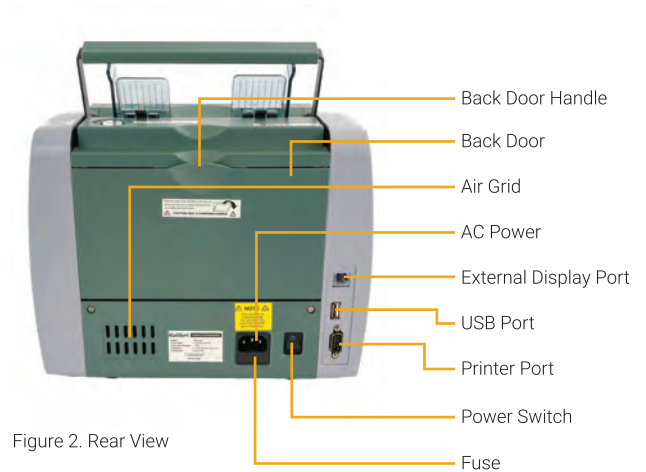
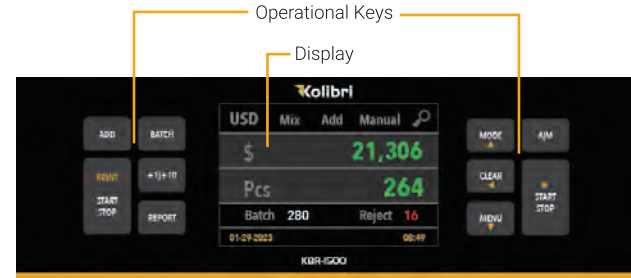


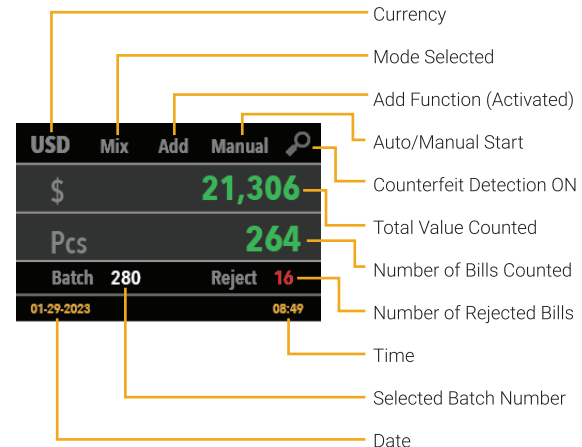
Figure 2. Rear View

### 1.5 Control Panel:

KEY		FUNCTION
	ADD Button	Activates/Deactivates the Add function.
	START/STOP/ PRINT Button	Manually starts the count/ Prints the displayed report if a printer is connected.
	BATCH Button	Activates/Deactivates the Batch function.
	+1   +10 Button	Customizes batch in increments of 1 or 10 (press for +1, hold for +10)
	REPORT Button	Shows the detailed report screen.
	MODE/UP Button	Changes modes/cursor up in the menu.
	CLEAR/BACK Button	Resets the count/works as a "back button" in the menu.
	MENU/DOWN Button	Shows setting/moves the cursor down in the menu
	AUTO/MANUAL Button	Toggles between Auto and Manual count start
	START/STOP/ ENTER Button	Manually starts the count/validates or confirms settings.



### 1.6 Home Screen:



## 2. Getting Started

### 2.1 Powering Up:

Ensure the hopper and stacker are empty. Then, attach the provided power cable to the power inlet on the back of the machine. Make sure to plug the power cable into a three-prong outlet and turn on the power switch located on the back of the machine.

The unit will load and conduct a self-check. When the home screen is displayed the machine is ready to operate.

### 2.2 Bill Loading Procedure:

To avoid jams and ensure the proper operating speed of the machine, it is important to correctly load the hopper. Bills should be placed in a neat stack before being placed into the hopper.

Avoid counting bills that are wet, excessively dirty, folded, or curled. Bills such as these can cause the machine to malfunction. Foreign objects such as clips or bands may jam the internal mechanisms of the unit, causing mechanical failure.

Adjust the hopper bill guides to a size slightly wider than the width of the bills. This will help to correctly situate the bills in the hopper and ensure smooth bill feeding.



**WARNING: Hazardous Moving Parts!**  
Do not place fingers, hair, clothes, etc. near the moving parts.

### Tips To Reduce Rejects:

#### 1. MAKE A STACK

Correct or remove bills that are severely wrinkled, damaged or folded. Square the bill stack.



#### 2. LOAD THE STACK



#### 3. FEED THE BILLS



### 3. Operating Instructions

#### 3.1 Selection of the Modes and Functions:

Pressing the **MODE** button will cycle between the Mix, Sort and Count modes. By default the machine is set to Mix mode.

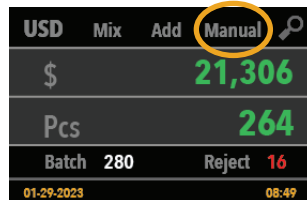
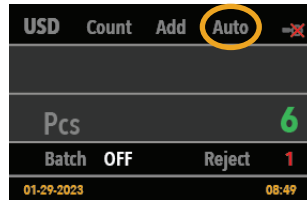
To begin a count, place the bills in the hopper and follow the steps described in **2.2 Hopper Loading Procedure**. Once the count is started, the machine will move bills from the hopper to the stacker until the hopper has been emptied.

#### 3.2 Automatic and Manual Count:

The KBR-1500 will default to Automatic count, and "Auto" will be displayed on the home screen.

If on Auto, the KBR-1500 will attempt to count bills whenever bills are detected in the hopper. To switch to Manual count, press the **AIM** button. If **MANUAL** count is selected, a "Manual" will be displayed on the home screen.

If on Manual, KBR-1500 will stop counting automatically and the **START/STOP** button must be pressed to begin each count. To switch to Automatic count, press the **AIM** button.



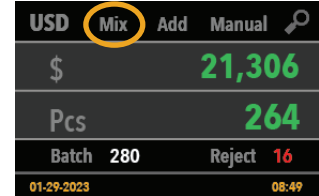
#### 3.3 Mix Mode:

This mode is selected by default or can be activated by pressing the **MODE** button until "Mix" is displayed on the home screen.



The MIX mode is used to count a bill stack of mixed denomination. Once the count has been completed, the home screen will display both the number and value of all bills passed. A detailed report can be viewed by pressing the **REPORT** button

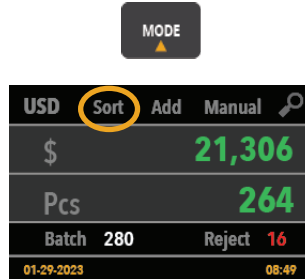
To return to MIX from another mode, press the **MODE** button until "Mix" is displayed on the home screen. Note that the Kolibri KBR-1500 will keep in memory the last mode used.



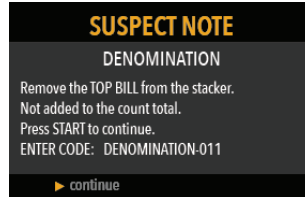
### 3.4 Sort Mode:

This mode is available by pressing the **MODE** button until "Sort" is displayed on the home screen.

The SORT mode allows the user to count and sort bills by denomination. The denomination will be automatically determined based on the first bill counted. The selected denomination will remain in memory until all bills are removed from the stacker.



Whenever a bill passes through the machine that does not match the current denomination, the machine will beep and display a "SUSPECT NOTE" message with instructions on the screen.



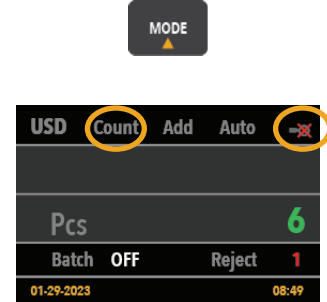
Once the hopper has been emptied, the machine will stop counting and the home screen will display the number and value of all bills passed. After the operation is complete, a detailed report can be viewed by selecting the REPORT button.

To return to SORT mode from another mode, press the MODE button until "Sort" is displayed on the home screen. Note that the Kolibri KBR-1500 will keep in memory the last mode used.

### 3.5 Count Mode:

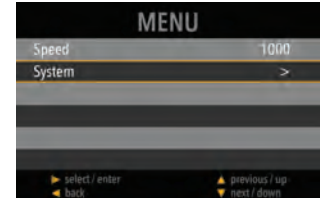
This mode is available by pressing the MODE button until "Count" is displayed on the home screen.

The COUNT mode allows the user to simply count the total number of bills. It does not recognize or record the denomination of any bills.



Counterfeit detection features are not available in COUNT mode.

To return to COUNT mode from another mode, press the MODE button until "COUNT" is displayed on the home screen. Note that the KBR-1500 will keep in memory the last mode used.





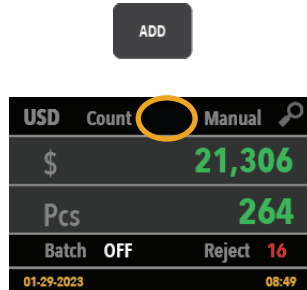
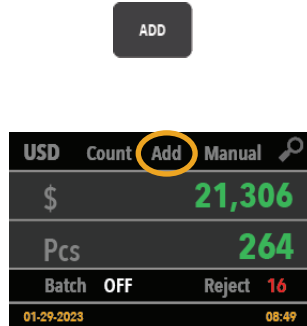
### 3.6 Add Function:

This function is available by pressing the **ADD** button on the control panel. It is activated when "ADD" is displayed on the home screen.

With the ADD function on, the user can count multiple stacks of bills while keeping track of the total amount and value of the bills counted.

Place the first stack of bills in the hopper and start the count. The number and value of bills will be displayed on the screen. When ready to count the next stack of bills, empty the stacker and add the new stack to be counted into the hopper. The KBR-1500 will continue to count and add the new count to the total.

To exit the ADD function, press the ADD button again.



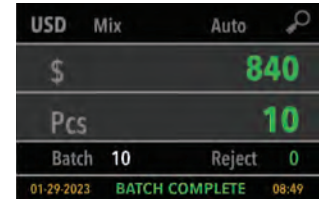
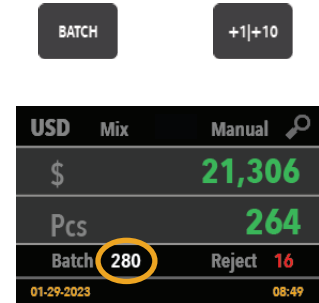
### 3.7 Batch Function:

This function is available by pressing the **BATCH** or **+1|+10** button on the control panel. When this function is activated, the current batch amount will be displayed on the home screen next to "Batch". If the batch size is set to 0, the batch function will be turned off.

The KBR-1500 counts a preset number of bills, and when the batch size has been reached the machine will beep, display the message, and stop counting, even if bills remain in the hopper. When bills are removed from the stacker, the machine will automatically start counting a new batch (if in AUTO start).

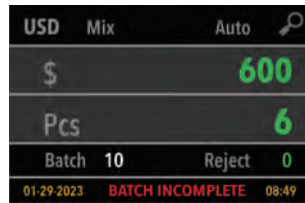
By default, the batch size is preset to 100. Pressing repeatedly the BATCH button allows the user to cycle through different preset batch quantities (100, 50, 20, 10).

When the set batch amount is reached, the KBR-1500 will automatically stop and a "BATCH COMPLETE" message will be displayed on the screen alongside the number of bills counted.



When the stacker is emptied, the machine will automatically continue to count to the preset batch amount to create another batch.

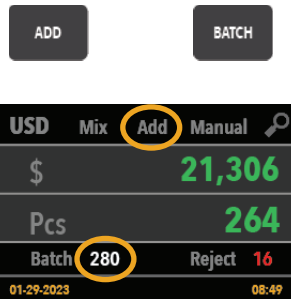
If the hopper runs out of bills before a batch is completed, the machine will display "INCOMPLETE BATCH" on the screen. At this point, the user may add bills to the hopper to complete the batch or remove the incomplete batch from the machine. To exit the BATCH function, keep pressing the BATCH button until "Batch OFF" appears on the screen.



### 3.8 Add+Batch Function:

This function batches the desired quantity of bills and monitors the running total at the same time. To activate this function, press the **ADD** and the **BATCH** buttons separately, the icon "Add" and batch size should be displayed on the screen.

To exit the ADD+BATCH function, press the ADD and BATCH buttons again separately.

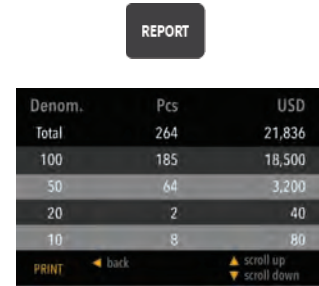


## 4. Post-Count Functions

### 4.1 Report:

This function is available by pressing the REPORT button and provides an on-screen summary report of the total amount of each denomination counted, the value of the counted bills of that denomination, and a total value of all bills counted. Press the MODE button and the MENU button to navigate up and down the report screen.

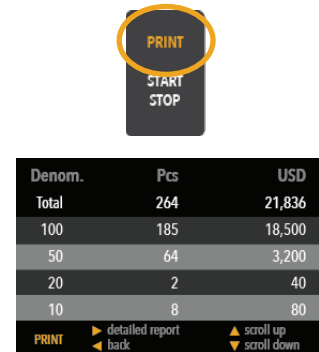
To exit the report screen, press the **CLEAR** button.



### 4.2 Print:

This function is available by pressing the **PRINT** button while on the report screen. If a printer\* is connected, a detailed print out of the counting report will be produced.

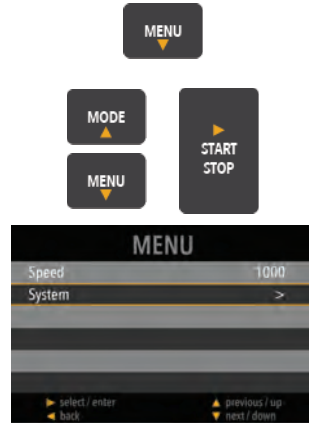
\*Printer sold separately.



## 5. Menus

### 5.1 Main Menu:

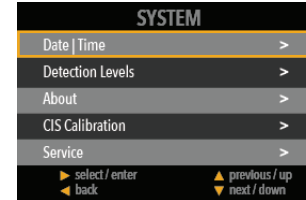
The Main Menu can be accessed by pressing the **MENU** button. To navigate up and down press the **MODE** and **MENU** buttons; to choose a sub-menu press the **START/STOP** button. To go back to the main menu screen or home screen press the **CLEAR** button.



Description of the Menu:

Menu	Description
1. Speed	Adjusts the counting speed to 800 or 1000 bills/minute.
2. System	Enters the SYSTEM sub-menu.

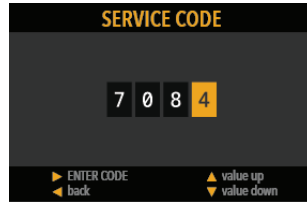
### 5.2 System Menu:



Sub-Menu	Description
1. Date/Time	Allows the user to set or change time and date.
2. Detection Levels	Provides the option to adjust the detection levels of the different sensors.
3. About	Displays the information about the product and the software version.
4. CIS Calibration	Provides instructions for and starts the calibration process.
5. Service	Displays the passcode screen to enter the Service Menu.

### 5.3 Service Menu:

To enter the service menu enter the passcode **7084**.



Service Menu	Description
Sensor Outputs	Displays the current values of sensors in the machine.
MG Waveforms	Displays the magnetic readings of the last bill counted.
Decoder Diagnostics	Begins a three hour diagnostic test. This test can be canceled by pressing the Clear button.
CIS-IR Image	Displays the CIS/IR image of the last bill counted.
Output File Name	Not functional.
Printer Device Settings	Not functional. Should be set to "Printer" to print externally.
IP Address	Not Functional.
Usage	Displays the lifetime total number of bills counted by the machine.
Factory RESET	Resets all settings on the machine to factory defaults.

## 6. Maintenance and Troubleshooting

### 6.1 Maintenance:

**ATTENTION:** The KBR-1500 should always be turned off and disconnected from its power cord before cleaning. DO NOT use solvents to clean the machine.

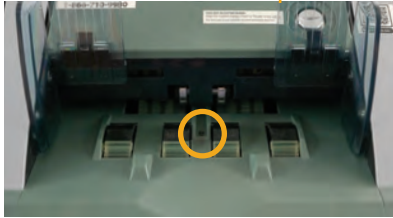
Most operational problems can be avoided by regular care and preventative maintenance. Taking regular care of the KBR-1500 will significantly increase its lifetime.

To avoid problems, make sure there are no metal clips or rubber bands in the bills being counted. Be sure to follow the proper procedure for loading the hopper, refer to section **2.2 Hopper Loading Procedure**.

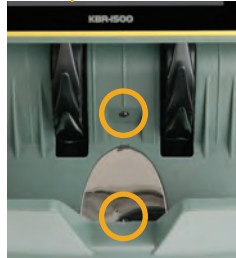
For best results, it is recommended to use an air duster and a soft bristle brush to remove any dust or debris from the interior of the unit. When not using the machine for an extended period, cover it with the provided dust cover to prevent dust from settling inside.

All parts of the KBR-1500 need daily care and cleaning. Pay close attention to the sensors, which are delicate components. If any dust or other foreign matter adheres to the sensors, it may cause various problems during operation of the machine.

1. Hopper Sensor
2. Stacker Sensor

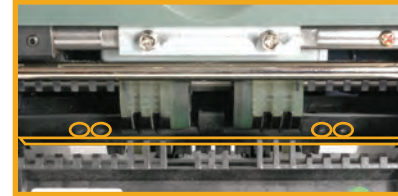


Hopper Sensor.

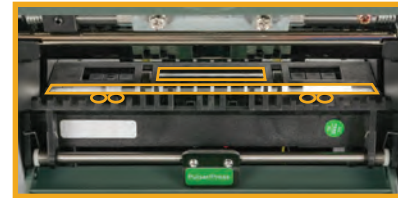


Stacker Sensors.

3. Upper Sensors Block
4. Lower Sensors Block



Upper Sensors Block.



Lower Sensors Block.

## 6.2 Adjusting the Feed Gap:

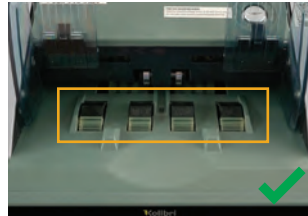
Sometimes, during the transportation or shipment of the unit, the adjustment of the feed mechanism may loosen. This can also happen during normal wear or tear and can lead to DOUBLE/CHAIN errors. The feed gap is the actual height of the bill feed path and should be tuned to just about the thickness of a single bill. If the feed gap is too wide, the user may experience a high amount of DOUBLE/CHAIN errors which are caused by more than one bill entering the scanning path at one time. If the feed gap is too tight, the unit may not be able to pass bills into the scanning path or catch on bills and tear them.

The following steps are the procedure for adjusting the feed gap:

1. Ensure the machine is turned off.
2. Position the rollers so that only two teeth in front are visible. This can be done by manually turning the rollers until only two teeth are showing and the smooth section of the rollers mainly is visible (see the images below).



Incorrect roller position.



Correct roller position.

3. Place one bill that is crisp and rigid enough to prevent bending during the adjustment procedure. Place the bill lengthwise either to the right or left side of the hopper (See image below).



Guide the bill between the inner rollers during this step; moderate resistance should be felt as the bill is moved back and forth through these rollers. In other words, the gap between these rollers should be wide enough to pass just one bill per count, but narrow enough to feel a slight tension or friction when pulling the bill out

To adjust the feed gap, use the instructions below to turn the adjustment screw on the top of the unit:

- a) Adjust the knob, slight turn at a time, and then retest.
- b) If the bill feels too loose, tighten the feed gap by turning the adjustment screw counterclockwise.
- c) If the resistance against the bill feels too strong, loosen the gap by turning the screw clockwise.



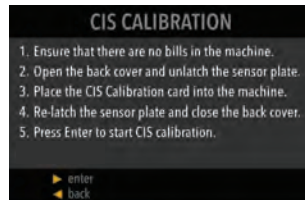
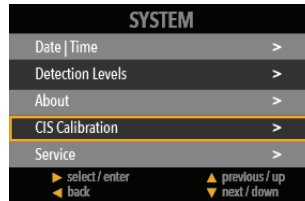
**IMPORTANT NOTE:**  
 The Kolibri KBR-1500 feed gap adjustment can be sensitive during adjustments. Do not overturn each adjustment or you may overshoot the optimum gap. We recommend testing with a stack of bills after each adjustment turn.

### 6.3 Calibration Procedure:

The Ultraviolet (UV) and Infrared (IR) sensors of the unit are calibrated properly from the factory. With regular, basic use, the sensor's sensitivity decreases which can lead to ID errors. To resolve this issue, the unit can be re-calibrated using the white calibration card that comes with the unit.

Please follow the steps below to calibrate the sensor:

1. Ensure the machine is turned ON.
2. Press the MENU button, move down, and select System when in System, select CIS CALIBRATION when in CIS CALIBRATION the instruction will be written on the screen.



3. Then turn the machine backside front.
4. Pull the back door handle to get access to sensor blocks.



When inside, push the metal latch down to get access to the upper and lower sensor block with CIS sensors.



Put provided white calibration card between two sensor blocks. Bring the lower sensor block back to its initial position by pushing the metal latch down and lifting the lower sensor block.



Make sure the lower sensor block is hooked back properly.



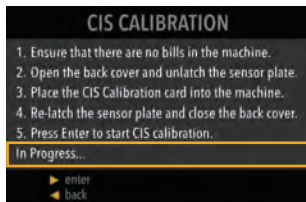
- Carefully proceed to close the back door with the calibration card inside the machine.



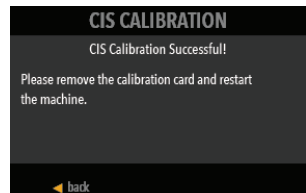
- Turn the KBR-1500 face side to yourself and press the START/STOP button to start the calibration process.



- Calibration will begin and the calibration screen will display the message "In Progress".



- When calibration is done "CIS Calibration Successful!" message must be displayed on the screen. The white calibration card should be removed and the KBR 1500 must be restarted.



- The calibration is done.
- If ERROR message displays "CIS Calibration Failed" the calibration card must be readjusted and placed exactly on top of the sensors and steps from 3 to 6 must be repeated.

## 6.4 Troubleshooting:

**NOTE:** The KBR-1500, like all other discriminators on the market with integrated detectors, cannot 100% guarantee a counted bill to be genuine or counterfeit. There are several reasons a genuine bill may be recognized as counterfeit, or vice versa.

Possible reasons include direct sunlight exposure, worn bills, excessively dirty bills, or highly advanced counterfeiting techniques used to produce the bill. Separate equipment may be required to definitively determine whether or not a bill is counterfeit.

Error Message	Cause	Solution
SUSPECT NOTE UV	Suspect bill detected by ultraviolet detection or there is UV detection issue.	Remove the top bill from the stacker. The bill is no added to the count. Press START to continue.
SUSPECT NOTE MG	Suspect bill detected by magnetic detection or there is MG detection issue.	
SUSPECT NOTE IR	Suspect bill detected by infrared detection or there is IR detection issue.	Remove the top bill from the stacker and make sure it is full-size. This bill is not added to the count.
SUSPECT NOTE IMAGE	Image of the bill is not genuine.	
SUSPECT NOTE ID	Image of the bill is not recognized.	
SUSPECT NOTE SIZE	The size of the bill is not genuine.	



## 7. Warranty

### 7.1 Warranty Information:

The Kolibri KBR-1500 is warranted for three years from the date of purchase. In most cases, a unit malfunction can easily be corrected by performing a thorough cleaning.

- Customer should allow the manufacturer the time and opportunity to test and diagnose the machine to determine warranty and non-warranty claims.
- After receiving and unpacking the unit, the customer shall keep the package and its user manual. Warranties are canceled in the event the device is transported in a non-original packaging or operation/maintenance conditions are not met.
- Kolibri is not responsible for unit malfunction or damage caused by improper maintenance, storage, use or transportation.
- Kolibri is entitled to introduce updated software, not described in the current user manual.

### Non-Warranty Service:

The manufacturer can perform maintenance and clean a unit for an extra fee. For a non-warranty repair or maintenance quotation, contact our Technical Support team.

Warranty service is not available in the following cases:

- Cleaning of the unit from dust and mud.
- Operation or maintenance requirements set in the user manual are not met .
- There is mechanical damage to the unit or the sealed portions of the unit have been opened or tampered with.
- There are foreign objects or liquids inside the unit.

Service Menu	Service Menu	Service Menu
SUSPECT NOTE DENOMINATION	Denomination of the bill doesn't match the first bill in the stacker.	Machine is in SORT mode. Different denomination is detected. Remove the top bill from the count. Press START to continue.
WARNING DOUBLE	The last counted bill is a double note or had double detection issue.	Check if the last notes in the stacker are stuck together. <b>Remove all notes from the stacker.</b> The total count will be reset. Press START to recount.
WARNING CHAIN	Two or more bills passed as one.	
WARNING HALF	The last bill counted doesn't confirm the size, rejected bill might be torn or folded.	Check if the last notes in the stacker are full-size bills. <b>Remove all notes from the stacker.</b> The total count will be reset. Press START to recount.
ERROR	IR sensors issue	Proceed with the Calibration procedure. Refer to Section 6.3 of the user manual.

### Other Possible Issues:

Problem Description	Cause/Action
KBR-1500 does not turn on.	Ensure the power cord is connected properly. Check the fuse in the fuse compartment and replace if necessary. Contact Kolibri's technical service center if the issue persists.
KBR-1500 fails to detect counterfeit notes.	The sensors may have collected dust. Refer to Section 6.1 Maintenance for location of sensors.

## 7.2 Contact Information:

### Technical Support Contact Information:

<http://kolibriusa.com/contact/>

### When contacting Technical Support, please have the following available:

- Product Model – Located on the back of the machine.
- Serial Number – Located on the bottom of the machine.
- Nature of the problem – What happened, and when did it happen? Did the machine display an error message?
- Steps that were already taken to resolve the problem, and the results.