Kolibri™
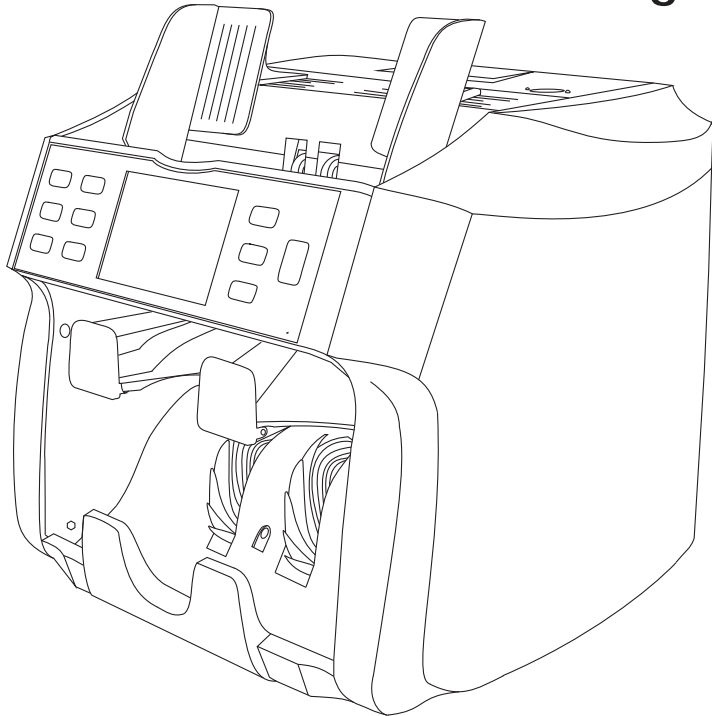## Signature

USER MANUAL
Kolibri Signature Two-Pocket Currency Discriminator

This manual contains important information on safety measures and operational features of the Kolibri Signature 2-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 into this user manual, specifications stated may not reflect all the features of the later software versions.

If you have questions about your Kolibri Signature and its operation, please contact technical support at www.kolibriusa.com/contact/

CHOKING HAZARD. SMALL PARTS. Not for children under 3 years old.

WARNING: RISK OF ELECTRICAL SHOCK. This equipment is to be serviced by trained personnel only.

DO NOT DISPOSE IN TRASH. Follow appropriate local electronics scrap procedures.

WARNING: HAZARDOUS MOVING PARTS. Do not place fingers, hair, clothes, lanyard... near moving parts.

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/**

Table of Contents:

1. INTRODUCTION

1.1 About the Kolibri Signature

Thank you for choosing the Kolibri Signature 2-pocket currency discriminator.

The Kolibri Signature is a professional, powerful, value counter and sorter, with a reject pocket meaning that the machine will never have to stop for a counterfeit, wrong denomination or incorrect face. Kolibri Signature has a convenient user-friendly interface, intuitive control panel, and a variety of counting modes. All of these features come with a strong built-in counterfeit detection and high level of performance.

1.2 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 subsequently used.
- Only use this product with the power cord supplied with the it. 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 of time, disconnect the power cord from the wall outlet.

1.3 Box Contents

1. Kolibri Signature 2 - Pocket Currency Discriminator
2. Power Cord
3. User Manual
4. Cleaning Brush
5. Calibration Sheet (White Paper Card)

1.4 Specifications

1.4.1 Product

Counting speed: Adjustable 800, 1000 and 1200 bills/min

Hopper capacity: 500 bills

Stacker capacity: 200 bills

Weight: 22 lbs (10 kg)

Dimensions: 10.5" x 10.5" x 11.7" (267 x 267 x 298 mm)

Power source: AC 100-240 V, 50/60Hz, ≤ 100W

1.4.2 Printer

Paper: Thermal Paper

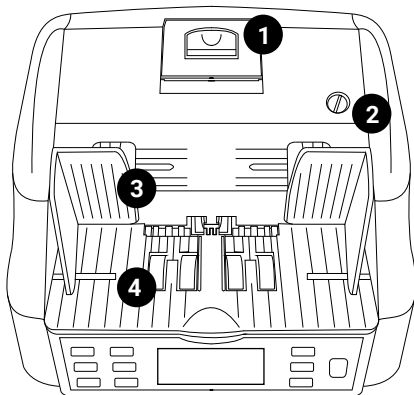Roll Width: $2^{1/4}$" (58mm)

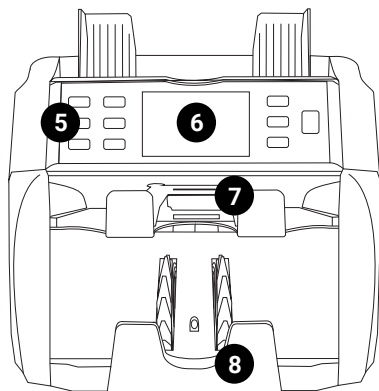Roll Diameter: $1^{1/2}$ (40mm)

Speed: 60mm/s

Paper Length: 60ft (18m)
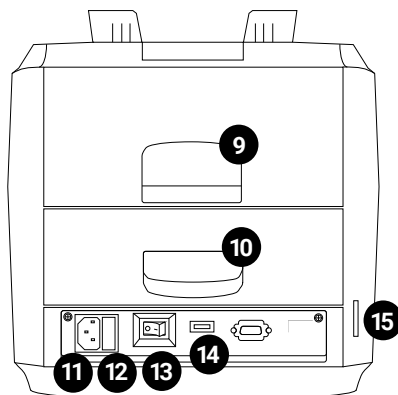
1.5   Views of the Kolibri Signature

1. Built-in Printer
2. Feed Gap Adjuster
3. Bill Guides
4. Hopper
5. Control Panel
6. LCD Screen
7. Reject Pocket
8. Stacker
9. Top Cover
10. Back Drawer
11. AC Power
12. Fuse
13. Power Switch
14. USB Port
15. SD Card Port

TOP VIEW

FRONT VIEW

BACK VIEW

1.6   Control Panel

Key	Function
1. REJECT Button	Shows the rejected bills and the reason
2. BATCH Button	Activates/Deactivates Batch mode and set Batch amount
3. ADD Button	Activates/Deactivates Add mode
4. PRINT Button	Starts printing receipt when Report screen displayed
5. REPORT Button	Shows the detailed Report screen
6. DISPLAY	Shows amount of bills counted, error codes, which modes and detection methods are active and settings
7. MENU Button	Shows settings and go back
8. MODE Button	Changes mode and move cursor up in Menu
9. CLEAR Button	Resets the count and move cursor down in Menu
10. START/STOP Button	Starts or Stop the count (when not in auto-start mode) or validate settings
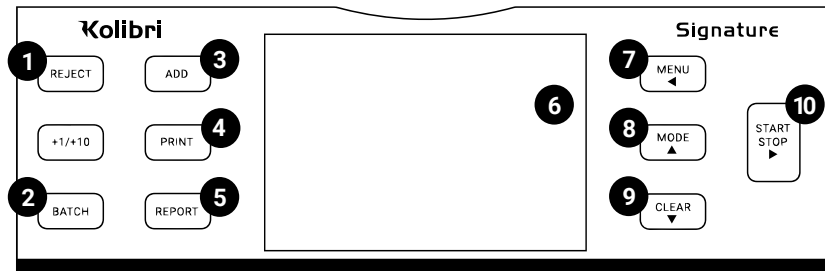
1.   Currency Selected
2.   Mode (MIX, FACE, ORIENT, COUNT, SORT)
3.   ADD Mode Active/Inactive
4.   Number of Pieces Counted
5.   Number of Bills Counted
6.   Total Value Counted
7.   Auto/Manual Start On/Off
8.   Date & Time
9.   Counterfeit Detection Active/Inactive
10.   Instruction Message
11.   Number of Rejected Bills
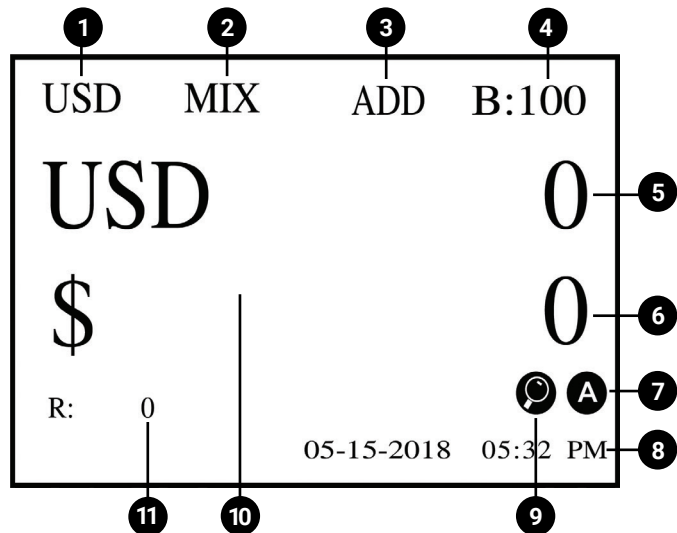
2. GETTING STARTED

2.1   Powering Up

Ensure the hopper and stacker are empty. Then, attach power cable to rear of the machine, plug into a three-prong outlet and turn the power switch, located on the rear of the machine, to the on position.

The unit will load and conduct a self-checking. The screen will display "0" when the unit is ready to operate.

2.2   Bill Loading

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

Avoid counting bills that are wet, excessively dirty, spoiled, folded, curled or with foreign material like clips, bands, etc. Bills such as these can cause the machine to malfunction.

Adjust the hopper bill guides to a size slightly wider (0.10" on each side) than the width of the bills in the stack (all US dollar denomination are the same size). This will help to correctly place the bills in the hopper, and will ensue smooth bill feeding.
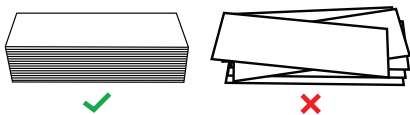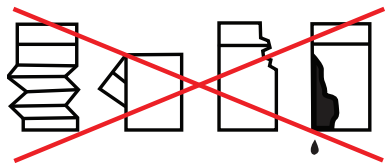
WARNING: Hazardous moving parts!
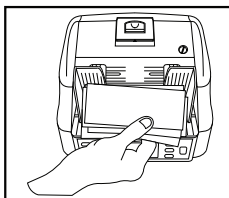**Do not place fingers, hair, clothes, etc. near the moving parts.**
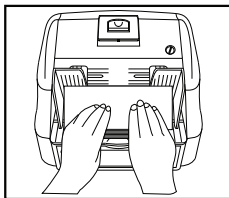
1. MAKE A STACK

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

2. LOAD THE STACK

3. FEED THE BILLS
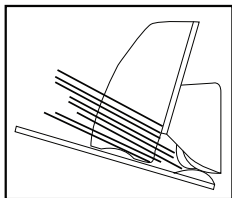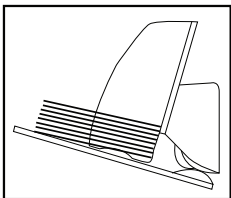
2.3   Adjusting Feed Gap

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 DB and DD 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 DB and DD 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 none of the dark-colored rubber teeth are visible. This can be done by turning the kick rollers. Only the black smooth sections of the rollers should be showing.
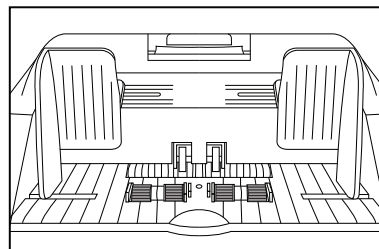
Incorrect Position:
Turn rollers until teeth are no longer visible.

Correct Position:

3. Place one bill that is crisp and rigid enough to prevent bending during the adjustment procedure. Place it lengthwise either to the right or left side of the hopper. See image below for example.
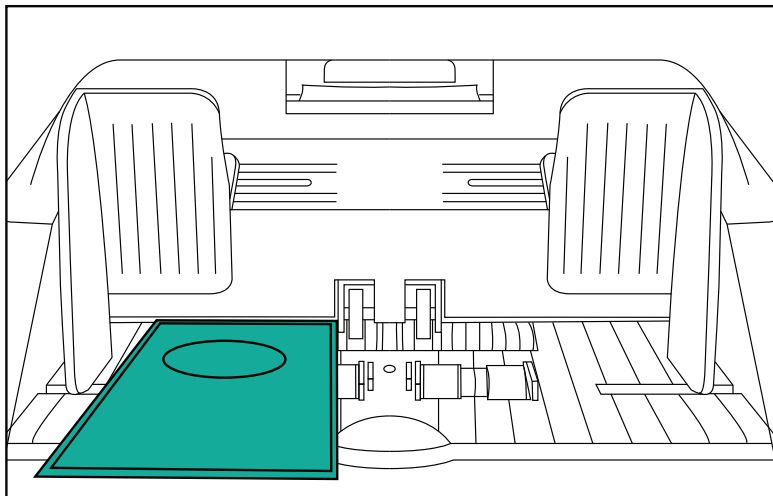
4. Guide the bill between the inner rollers during this step; you should feel moderate resistance as you move the bill back and forth through these rollers. In other words, the gap between these rollers is wide enough to pass just one bill per count, but narrow enough to feel a slight tension or friction when pulling the bill out.
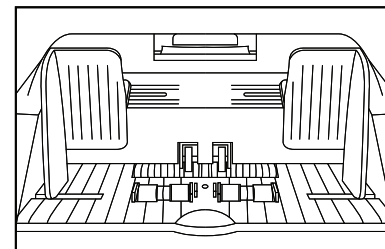
To adjust the bill feed gap, use the instructions below to turn the adjustment screw at the top of the unit:

a) Make a 2 dot adjustment turn at a time, then retest.
b) If the bill feels too loose, tighten the feed gap by turning the adjustment screw counterclockwise.
c) If the resistence against the bill feels too strong, loosen the gap by turning the screw clockwise.
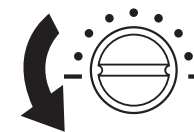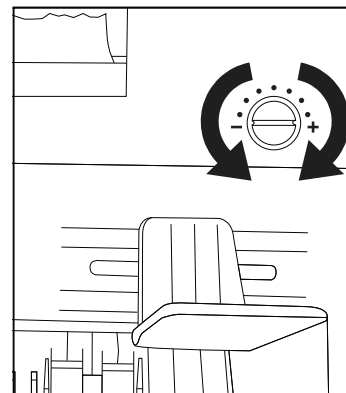
If you are experiencing a high amount of DB, DD errors or multiple bills jammed inside the machine, turn the adjustment screw counterclockwise 2 dots at a time, then retest.

If the unit has a hard time feeding the bills or tears the bill, turn the adjustment screw clockwise 2 dots at a time, then retest.

Important Note:
The Kolibri Signature's 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.

3. OPERATING MODES

3.1   Auto & Manual Mode

After turning the machine on it will default to AUTO mode, an "A" will be displayed on the home screen. In this mode the machine starts counting automatically. To operate with the MANUAL mode, go to Menu, by pressing the MENU button, then select AUTO/ MANUAL START with the START button and finally select MANUAL by going down with the CLEAR button and validate with START button. A check mark will be displayed next to the Mode selected. To go back to the home screen, press twice on the Menu button. If MANUAL is selected, a "M" will be displayed on the home screen.

If the machine is set to operate with the MANUAL mode, the machine will stop counting automatically; the "START" button must be pressed to begin each count. To go back to AUTO mode, select AUTO mode in the menu.

3.2   Mix Mode

After turning the machine on it will default to MIX mode.

MIX mode is used to count a stack of mixed denominations. To count mixed bills, place them in the hopper and follow the procedure described in 2.2 LOADING THE HOPPER. The machine will start counting and will move the bills from the hopper to the stacker as it counts them. The machine will stop counting when the hopper is completely emptied. Total number of bills and total value will be displayed on home screen. When operation is complete, you can view a detailed report by pressing the REPORT button.

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

3.3   Face Mode

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

FACE mode allows the user to sort bills based on whether they are loaded into the Signature face up or face down. The first bill in the hopper determines the sorting and counting orientation. If the first bill through the machine is faced up, all bills in the hopper that are faced up will end up in the stacker. All the other bills that are faced down, will end up in the reject pocket. Total number of bills and total value will be displayed on home screen. When operation is complete, you can view a detailed report by pressing the REPORT button.

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

3.4   Orientation Mode

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

ORIENTATION mode allows the user to count and sort bills by one of 4 orientations. The first bill in the hopper determines the counting orientation. Any time a bill passes through the machine and does not conform to the orientation determined by the first bill, the machine will reject this bill into the reject pocket. Total number of bills and total value will be displayed on home screen. When operation is complete, you can view a detailed report by pressing the REPORT button.

To return to ORIENTATION mode from another mode, press the MODE button until "ORIENT" is displayed on the home screen. Note that the Kolibri Signature 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.

COUNT mode allows the user to simply count the total number of bills. It does not recognize or record the denomination of any bills. During COUNT mode, there is no counterfeit detection active.

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

3.6 Sort Mode

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

SORT mode allows the user to count and sort bills by one denomination which is automatically determined by the first bill scanned in a stack. This can be useful to be sure that there are no bills of other denominations in a large strap of one denomination. The first bill in the hopper determines the counting and sorting denomination. Any time a bill passes through the machine and does not conform to the denomination determined by the first bill, the machine will reject this bill into the reject pocket. Total number of bills and total value will be displayed on home screen. When operation is complete, you can view a detailed report by pressing 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 Signature will keep in memory the last mode used.

3.7 Add Mode

This mode is available by pressing the ADD button on the control panel. When ADD mode is activated, an ADD icon will be displayed on the home screen.

In this mode, the unit will count multiple stacks of bills while keeping track of the total amount and value of bills counted. Place the first stack of bills to be counted into the hopper. The number and value of bills will be displayed on 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 unit will continue counting and add the new count to the total.

To exit ADD mode, press again the ADD button.

3.8 Batch Mode

This mode is available by pressing the BATCH or +1/+10 button on the control panel. When BATCH mode is activated, a "B:" icon with the batch number will be displayed on the home screen.

BATCH mode is used to select a batch quantity for a specific counting process. With the BATCH mode active, the machine counts a preset number of bills and then stops counting when the batch number has been reached, even if bills remain in the hopper. By default, pressing the BATCH button will set the batch size to 100. The batch size can be adjusted by pressing the +1/+10 or the BATCH button.

When the set batch amount is reached, the Signature will automatically stop and a "BATCH COMPLETE" message will be display on the screen alongside the number of bills counted. When the stacker is emptied, the machine will automatically continue to count up 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 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 BATCH mode, press again the BATCH button until the "B:" icon disappears from the screen.

3.9   Add + Batch Mode

This mode batches the desired quantity of bills and monitors the running total at the same time. To activate this mode, press the ADD and BATCH button until both icons are displayed on the screen.

To exit ADD + BATCH mode, press again the ADD and BATCH buttons until both icons disappear from the screen.

4. AFTER-COUNT FUNCTIONS

4.1   Report

This function is available by pressing the REPORT button and provides an on-screen report of the total amount of each denomination counted, the value of the counted bills of that denomination, and a grand total value of all bills counted.

To exit the report screen, press the MENU button.

4.2   Print

The Kolibri Signature has a built-in printer on the top of the machine. Make sure to properly load the thermal receipt paper before using this function.
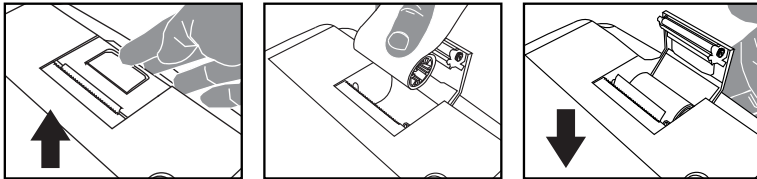
| 1. Lift up the lid to open. | 2. Insert paper roll inside. | 3. Close lid and leave 1/4" of the paper sticking out. |

This function is available by pressing the PRINT button while being on the report screen. If thermal receipt paper is loaded, a detailed printout of the counting report will be produced.

4.3   Reject

This function is available by pressing the REJECT button and provides an on-screen report of the rejected bills and the reason of their rejection.

To exit the reject screen, press the MENU button.

Reject message display:

Reject Code	Cause
UV ERROR	Suspect bill detected by ultraviolet detection or UV detection issue
MG ERROR	Suspect bill detected by magnetic detection or MG detection issue
IR ERROR	Suspect bill detected by infrared detection or IR detection issue
DB ERROR	The last counted bill is a double note or double detection issue
DD ERROR	The size of the bill is different
ID ERROR	Image of the bill not recognized
FACE	Face of the bill does not match
SORT	Denomination of the bill does not match
ORIENT	Orientation of the bill does not match

Please note that the Signature, like all other discriminators with integrated detectors on the market, cannot 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.

4.4   Menu

The Menu can be accessed by pressing the MENU button. To navigate and choose the sub-menu, use the arrows and press the START button to enter the sub-menu. Press the MENU button to go back to the menu or exit the menu.

Description of the sub-menu:

Key	Function
1. AUTO/MANUAL START	Set the AUTO or MANUAL mode, see section 3.1 AUTO & MANUAL MODE for more details
2. SPEED	Set the counting speed of the machine: 800, 1000 or 1200 bills/min Use arrows to select the speed and the START button to validate the setting
3. SENSORS SET	Activate or deactivate the modes (COUNT, SORT, MIX, FACE, ORIENT) that can be used from the home screen. When the mode is "ON", this mode can be selected from the home screen. When the mode is "OFF", it cannot. Use START button to switch "ON/OFF"
4. DETECTIONS	Activate or deactivate the detection features (Magnetic (MG), Ultraviolet (UV), Double (DB), Dimension (DD), Infra-red (IR)…). Use START button to switch "ON/OFF"
5. DATE & TIME	Set the date and time that will be display on the home screen and the printed counting report. Use UP and DOWN arrows to change the value and validate with the START button
6. BEEP	Toggle the beeping that occurs with every action. Use UP and DOWN arrows to switch "ON/OFF"
7. UPDATE	Update the machine
8. PRODUCTION INFORMATION	Display information about the product and the software version

5. MAINTENANCE AND TROUBLESHOOTING

5.1   Maintenance

ATTENTION: The unit should always be turned off and disconnected from its power cord before cleaning. DO NOT use solvents such as thinner, alcohol, etc. to clean the machine.

Most operational problems can be avoided by regular care and preventative maintenance. Taking regular care of the Signature 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 BILL LOADING.

For best results, it is recommended that 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 time, cover it with a dust cover (not included with the unit) to prevent dust from settling inside.

All parts of the Kolibri Signature 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.

• To avoid malfunction caused by foreign objects, please clean your machine every day
• Clean back drawer with the provided bristle brush or a dry cloth frequently
• Clean top cover and CIS with provided bristle brush or a dry cloth frequently
• Clean sensors with the provided bristle brush or a dry cloth frequently
• Rubber rollers may be cleaned with a slightly damp cloth. You may use a small amount of liquid soap on the cloth, but the soap residue should properly removed.
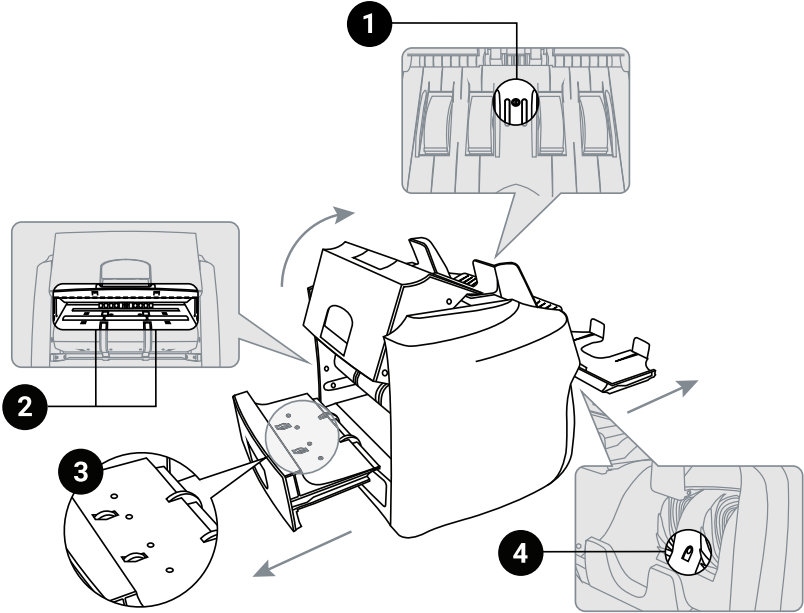
1. Hopper sensor
2. Top cover CIS and sensors
3. Back drawer sensors
4. Stacker sensor

5.2 Calibrate

The contact image sensor (CIS) of the unit is 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 paper that came with the unit.

Please follow the steps below to calibrate the sensor:

1. Ensure the machine is turned ON.
2. On the front of the machine, press the "ADD" and "PRINT" button at the same time. A calibration screen will display with a message instructing you to "Open the Cover and put in the calibration paper".

3. Then turn the machine backside front. Proceed to pull the top-back cover from the machine upwards.
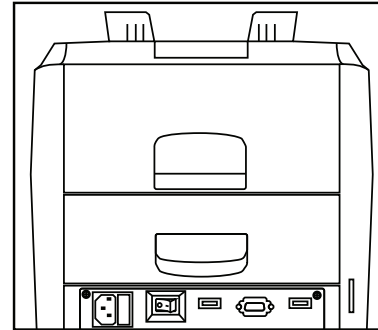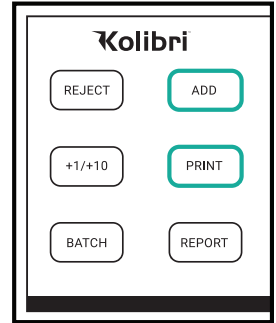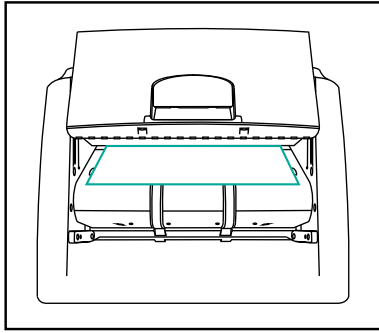
4. Put the provided laminated calibration card inside the top back door opening until it fits securely against the hopper rollers.

5. Carefully proceed to close the top back cover with the calibration sheet (white paper card) in place inside the machine.

6. Once the top back cover is closed, turn the machine face side to yourself to start the calibration process.

7. Press the buttons in the following order "BATCH," "REPORT," "BATCH". Once the buttons are pressed in that order, a calibration screen should appear on the display.

① ② ③
BATCH → REPORT → BATCH
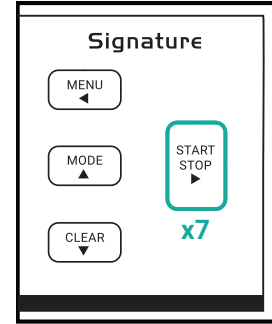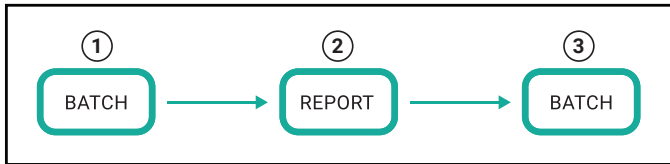
8. Next, press the "START/STOP" Button 7 times to initiate the calibration process. Once the buttons are pressed 7 times, calibration will begin and the calibration screen will display a message "CIS check wait."

Signature

MENU ◄

MODE ▲   START STOP ►

CLEAR ▼   x7

9. Once calibration is completed, a message of successful adjustment will show "CIS check ok." If a message of "CIS check fail" is shown, try re-adjusting the calibration card in the machine for better placement underneath the CIS sensor and repeat steps 4 to 8 again.

10. Once the successful message is shown, remove the calibration card from inside the machine.

11. Reset the machine by turning it off, then on.

12. The CIS calibration is done.

5.3   Troubleshooting

Error message display:

Issue	Procedure	Reference
UV Error (Excessive)	Clean or replace ultra violet (UV) sensor	Remove all bills from stacker and reject pocket. Recount. If excessive errors occur, ensure: 1. Bills are loaded properly (ref. section 2.2 Bill Loading) 2. Feed Gap is adjusted properly. (ref section 2.3 Adjusting Feed Gap) 3. Sensors are clean (ref section 5.1 maintenance) 4. Recalibrate unit (ref section 5.2 Calibrate) If problem persists, refer to section 5.5 Contact Information to contact Kolibri's technical service center for additional support
MG Errror (Excessive)	Clean or replace magnetic (MG) sensor	
IR Error (Excessive)	Clean or replace infrared (IR) sensor	
DD Error (Excessive)	Clean or replace counting sensors	
DB Error (Excessive)	Clean or replace counting sensors	
ID Error (Excessive)	Clean or replace counting sensors	
Unit Does Not Turn On	1. Ensure power cord is plugged in. 2. Check fuse and replace if damaged (under power outlet)	
MOTOR/ROLLERS DO NOT ROTATE	1. Turn off unit and remove any jammed bills or foreign object. 2. Check if drive belt damaged (+ send part)	If problem persists, refer to section 5.5 Contact Information to contact Kolibri's technical service center for additional support
MOTOR/ROLLERS KEEP TURNING	1. Ensure lid is properly closed 2. Turn unit off/on	

Issue	Procedure	Reference
UNIT DOES NOT DETECT COUNTERFEIT	1. Clean ALL sensors 2. Recalibrate unit	Remove all bills from stacker and reject pocket. Recount. If excessive errors occur, ensure: 1. Bills are loaded properly (ref. section 2.2 Bill Loading) 2. Feed Gap is adjusted properly. (ref section 2.3 Adjusting Feed Gap) 3.Sensors are clean (ref section 5.1 maintenance) 4. Recalibrate unit (ref section 5.2 Calibrate)
BILLS DON'T FEED SMOOTHLY OR JAMS	1. Clean sensors 2. Adjust feed gap 3. Load bills properly	
BILLS DON'T FEED SMOOTHLY OR JAMS	1. Turn off unit and remove any Turn off unit and clean foreign objects present in bill path 2. Adjust feed gap 3. Load bills properly	
MOTOR/ROLLERS KEEP TURNING	Turn off/on unit	
TEST-7 UP_MOTOR ERR	Problem with main motor or problem with the control circuit	Clean or replace the sensor If problem persists, refer to section 5.5 Contact Information to contact Kolibri's technical service center for additional support
TEST-5 Hopper Capacity error	Problem with Start Sensor	
TEST-2R_D_IR	Issue with the lower right counting sensor	
TEST-4R_D_IR	Issue with the upper right counting sensor	
L_D_IR	Issue with the lower left counting sensor	
L_U_IR	Issue with the upper left counting sensor	

5.4   Warranty

The Kolibri Signature is warranted for a period of one year 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, 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
• Company is not responsible for unit malfunction due to improper maintenance, storage, or transportation including, but not limited to mechanical damage
• Manufacturer is entitled to introduce updated software, not described in the current user manual

Non-Warranty Service:
The manufacturer can perform maintenance and cleaning 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 rules 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 liquid inside the unit

The warranty does not cover shipping to Kolibri's technical service center.

5.5   Contact Information

For technical support, call 1-877-898-8750
or visit www.kolibriusa.com/faq-signature/

When contacting Technical Support, please have the following available:
• Product Model – Located on the back side 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 already taken to resolve the problem, and the results.