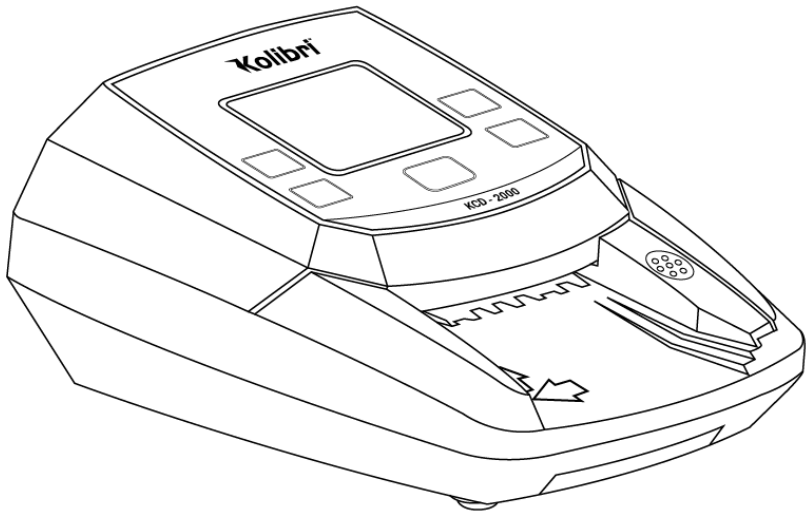


Kolibri™

KCD-2000



USER MANUAL
KCD-2000 Counterfeit Detector

This manual contains important information on safety measures and operational features of the KCD-2000 4-way counterfeit detector. 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 KCD-2000 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/>

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1. INTRODUCTION

1.1 About the KCD-2000

Thank you for choosing the KCD-2000 4-way counterfeit detector.

The KCD-2000 is an automatic and powerful tool for identifying suspected counterfeit bills. It reads the denomination of the bills with infrared sensors to catch suspected counterfeit bills and give a full on-screen report of the genuine bills counted. With its advanced sensors, the KCD-2000 also verifies magnetic marks and UV signatures.

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 adapter supplied with the unit. Plug the power cord into a properly grounded wall outlet. 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. KCD-2000 4-Way Counterfeit Detector
2. AC/DC Power Adapter
3. User Manual

1.4 Specifications

Weight: 1.3 lbs (0.59 kg)

Dimensions: 6.9" x 5" x 3.2" (175mm x 128mm x 81mm)

Sensors: Ultraviolet (UV), Magnetic (MG), Infrared (IR)

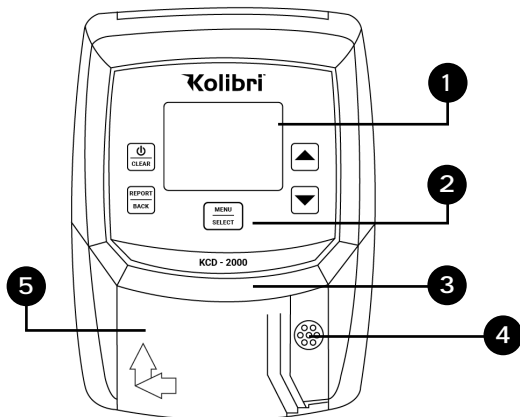
Power Supply: AC/DC adapter, 12V 500mA

Power Consumption: 10W

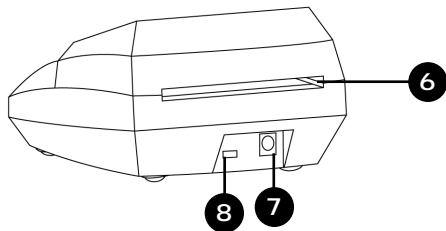
Applicable Currency: United States Dollar

1.5 Views of the KCD-2000

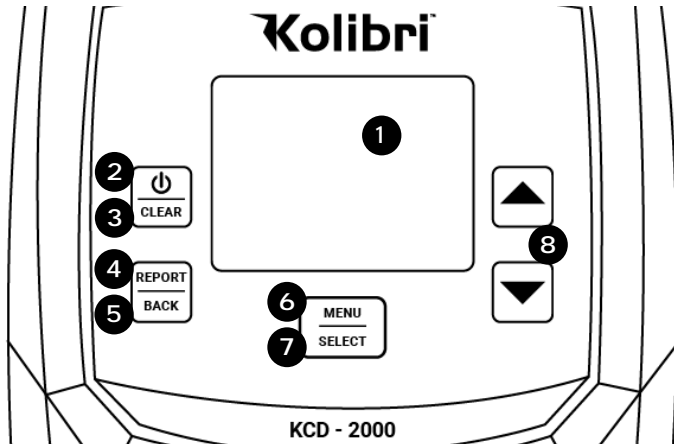
1. Screen
 2. Control Panel
 3. Lid
 4. Magnetic Bill Guide
 5. Front Slot
-
6. Rear Slot
 7. Power Input Jack
 8. Micro USB Port



TOP VIEW



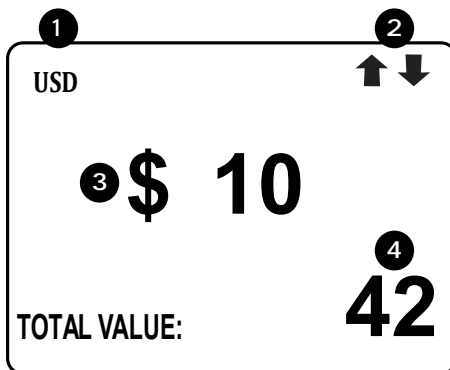
BACK VIEW



CONTROL PANEL	
Key	Function
1. Display	Shows detection outcome
2. POWER Button	Turns unit ON/OFF by pressing and holding down for three seconds
3. CLEAR Button	Resets the count
4. REPORT Button	Shows the detailed report of bills counted
5. BACK Button	Goes back to home screen from menu or report screen
6. MENU Button	Shows settings
7. SELECT Button	Selects settings in the menu
8. ARROW Buttons	Changes the direction that bills are ejected (front or back). Moves cursor in the menu

1.6 Home Screen

1. Currency Selected
2. Direction of Ejection
3. Note Value/Instruction Message (in Value Mode)
4. Total value counted



2. GETTING STARTED

2.1 Powering Up

Ensure the lid is properly closed. Connect the AC/DC adapter to the KCD-2000 and plug the adapter plug into the power outlet. Turn the KCD-2000 on by pressing the POWER button. The unit will start loading the system after a couple of seconds and conduct a short self-test. The screen will display the home screen, indicating it is ready to operate.

2.2 Checking a Bill's Condition

Avoid inserting bills that are torn, heavily worn or crumpled. Do not insert bills that have staples attached or bills that are covered by adhesive tape. Do not insert wet or heavily stained bills

2.3 Inserting the Bill

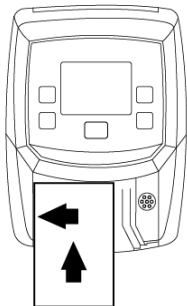
KCD-2000 is a 4-way detector, meaning that bills can be inserted in any 4 possible orientations. After the bill is positioned in the insertion slot properly (see images below), the detector will automatically feed and scan the bill. If a bill is recognized as authentic, the following will occur:

1. The value of the scanned bill will be displayed (if in value mode)
2. The bill will be ejected from the selected direction

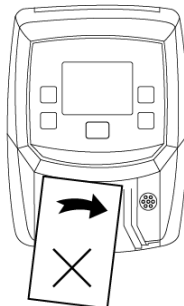
Note: Unrecognized bills will always be ejected from the front regardless of the selected direction.

1. The machine will emit two beeps
2. An error message will be displayed
3. The bill will be ejected from the front

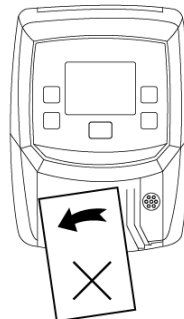
Correct Way



Wrong Way



Wrong Way

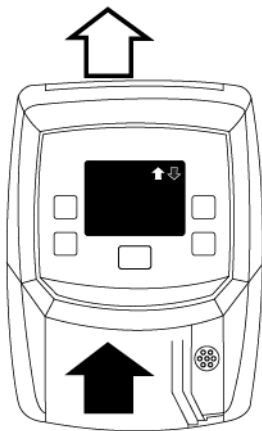


2.4 Direction of Ejection

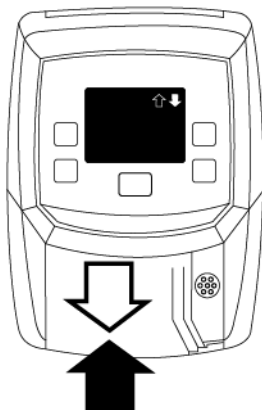
The direction that the KCD-2000 ejects bills can be changed from front to back by pressing the DIRECTION buttons or by selecting the option in the menu. The direction the bill will be ejected will be displayed on the top right corner of the screen.

Note: Unrecognized bills will always be ejected from the front regardless of selected direction.

Back Ejection



Front Ejection



3. OPERATING MODES

3.1 Value Mode

After turning the KCD-2000 on, it will default to Value mode. In this mode the unit displays:

- The value of the scanned bill in green in the middle of the screen if and the bill is recognized
- The error message in red in the middle of the screen if the bill is NOT recognized

To return to Value mode from another mode, press the MENU button and select VALUE as a mode.

To clear the total value display on the screen, press the CLEAR button.

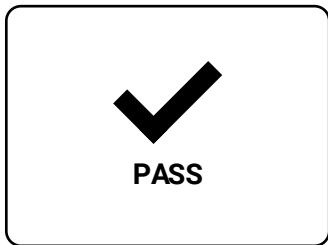
Note that the KCD-2000 will keep in memory the last mode used.

3.2 Pass/Fail Mode

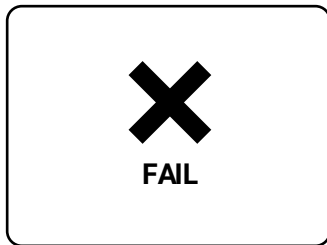
Pass/Fail mode is used to only display if the bill is recognized or not with a clear PASS and FAIL message on the screen.

To use Pass/Fail mode, press the MENU button and select PASS/FAIL as a mode.

Bill Recognized



Bill NOT Recognized



4. 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.

Bills that fail are not recorded on the report screen.

To exit the report screen, press the BACK button.

4.2 Menu

The menu can be accessed by pressing the MENU button. To navigate and choose the settings, use the arrows and press the SELECT button to confirm. To exit the menu, press the BACK button.

Settings	Description
KEY BEEP	Toggles "ON/OFF" the beeping that occurs with every action
WARNING BEEP	Toggles "ON/OFF" the beeping that occurs when bill is not recognized
SLEEP MODE	Sets the time for unit to enter into sleep mode
DIRECTION	Sets the direction the bill will be ejected
MODE	Selects the operating mode

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.

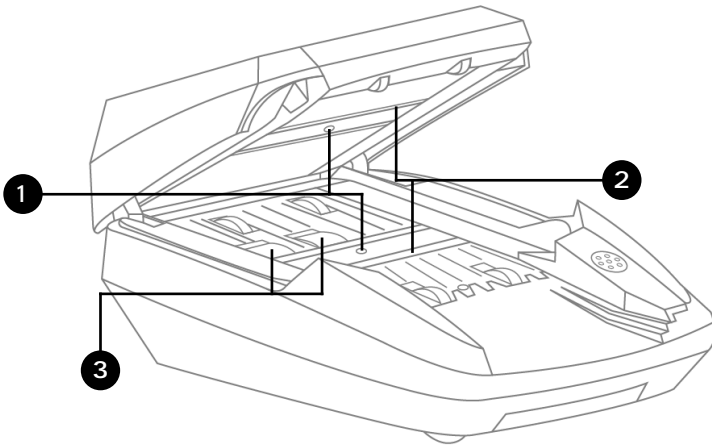
Most operational problems can be avoided by regular care and preventative maintenance. Taking regular care of the KCD-2000 will significantly increase its lifetime.

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. Insert approximately $\frac{1}{4}$ inch of the duster nozzle through the front bill insertion slot to blow away any debris that may have accumulated inside the unit.

Do not insert the nozzle more than $\frac{1}{4}$ inch into the unit as it may damage the sensor mechanisms inside the KCD-2000 unit.

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. UV Sensor
2. IR Sensors
3. Magnetic Sensors



Note: that several factors can cause a KCD-2000 to not recognize a genuine bill:

- Overly wrinkled, overly creased and overly worn bills.
- If the unit is dropped or bumped.
- A sudden change in temperature
- Extended period of non-use
- Improper maintenance or lack of preventative maintenance/cleaning

5.2 Troubleshooting

Error Message	Cause	Solution
UV SUSPECT	Suspect bill detected with UV	We recommend passing a bill through the detector at least 3 times in different orientations prior to rejecting the note as suspected or counterfeit.
MG SUSPECT	Suspect bill detected with MG	
IR SUSPECT	Suspect bill detected with IR	
DOUBLE SUSPECT	Suspect bill detected with thickness	
SIZE SUSPECT	Suspect bill detected with size	
Check UV	Issue with the UV Sensor	Clean or replace the sensor. See section 5.1 "MAINTENANCE"
Check MG	Issue with the MG Sensor	
Check IR	Issue with the IR Sensor	
Check MOTOR or PULSE	Issue with motor or encoder	Contact Kolibri's technical service center

Other possible errors:

Problem Description	Cause/Action
Unit does not turn on	Ensure the power cord is connected properly. Press and hold down the POWER button for 3 seconds until unit emits a beep. Contact Kolibri's technical service center if the issues persists.
Unit motor/rollers keep turning	Ensure the lid is properly closed. Turn off the unit and turn it back on. Contact Kolibri's technical service center if the issue persists.
Unit does not read the bills or fails to detect counterfeit	Turn off the unit. Open lid. Use an air duster or soft brush to clean the interior sensors of the KCD-2000. See section 5.1 "MAINTENANCE" Close lid tightly. Turn unit on .
Bills are jammed	Turn off the unit. Open lid. Use an air duster or soft brush to clean the interior sensors of the KCD-2000. See section 5.1 "MAINTENANCE". Look for any foreign objects inside the unit (paper clips, rubber bands, etc.). Remove foreign objects. Close lid tightly. Turn unit on.

5.3 Warranty

The KCD-2000 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.

5.4 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 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.

Kolibri

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Specifications subject to change without notice.

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FNKCD2000082018