



User Guide

D470

**Automatic QuadScan
Counterfeit Bill Detector**



www.AccuBANKER.com

**Thank you for trusting *AccuBANKER*
with your cash handling needs.**

**In order to optimize the performance of your
equipment, we encourage you to thoroughly read
this user guide prior to use.**

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Safety Instructions

Warning



Do not use this product in areas where it may be exposed to water or other liquids.



Unplug this product from the electric outlet before cleaning. Do not use liquid or aerosol cleaners. To clean, use a damp cloth.



To reduce the risk of electric shock, do not disassemble this product. Take it to qualified service personnel when service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.



Only use the cable provided with the unit. The use of other cables may result in electric shock, fire, or cause serious damage to the unit.



Do not operate the unit in areas with high temperature or high humidity since it may prevent it from working correctly.

Caution

When unplugging the power cord, do not pull it by the cord, but rather grip the plug to pull it out. Not following these instructions may result in electric shock, fire, or damage to the unit.

Do not use the unit if the power cord is damaged or if the plug socket contact is loose. Not following these instructions may result in electric shock, fire, or other hazards.

Do not place heavy objects over the cord and do not bend it excessively since it could get damaged. Not following these instructions may result in electric shock, fire, or other hazards.

When not using the unit for a long time, remove the power plug from the electric outlet.

Safety Instructions (cont.)

- Read and understand all of the safety instructions.
- Follow all warnings and instructions marked on the unit.
- This product is meant to be operated in an indoor environment with proper ventilation.
- Do not place near direct sunlight, heat sources, or air conditioners.
- This product should only be operated with the power cord supplied and the type of power source indicated in this user guide. If you are not sure of the type of power supply in your location, consult your vendor or local power company.
- To avoid the risk of fire or electric shock, never push objects into the unit through the case slots or openings, since they may touch dangerous voltage points or shortcut parts. Do not disassemble the unit.
- Never spill liquids of any kind on the product.
- Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power supply cord or plug is damaged or frayed*
 - If liquid has been spilled into the unit, or it has been exposed to rain or water*
 - If the product has been dropped or the case has been damaged*
 - If the product shows a noticeable change in performance

**Not covered under warranty*

NOTE: Do not remove the "ground" prong from the power cord. It is a safety feature meant to protect the user from harm and the equipment from damage.



If the unit does not operate normally while following the instructions, adjust only those controls covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

1. Introduction

The D470 incorporates the most modern techniques for the evaluation and detection of counterfeit bills. This detector assesses the security features that are present in each bill in detail and determines if these are genuine or suspicious.

The equipment automatically alerts the user both visually and audibly when a suspicious bill is identified.

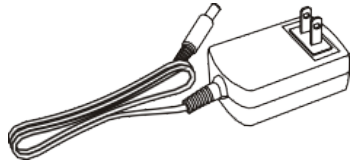
2. Box Contents

1. D470
2. Power Adapter
3. User Guide
4. Warranty Booklet

1.



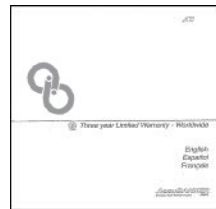
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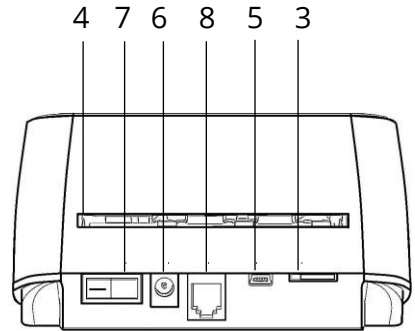
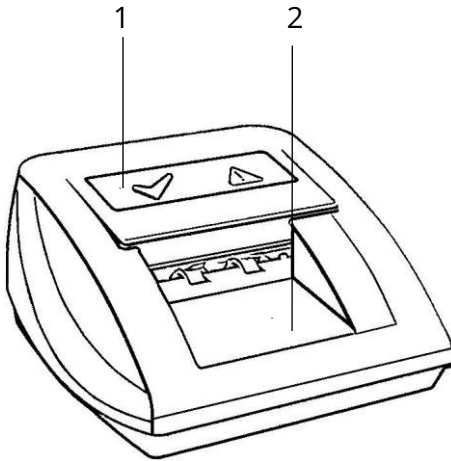


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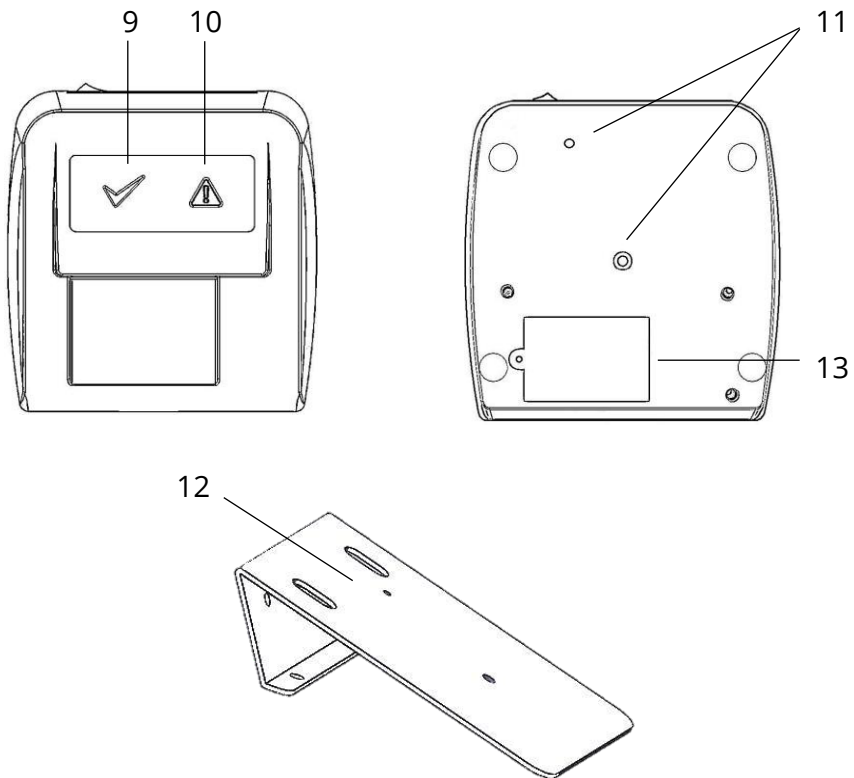
3. Equipment Overview

1. LED Indicator Display
2. Feeding Channel
3. SD Card Port
4. Bill Exit Slot
5. USB Interface Port
6. Power Adapter Connector
7. On / Off Power Switch
8. Serial Port



3. Equipment Overview (cont.)

- 9. Green Indicator ✓ (Indicates bill accepted)
- 10. Red Indicator ⚠ (Indicates suspicious bill)
- 11. Grips for the AccuStand metal base
- 12. AccuStand metal base (Optional Accessory / Sold separately)
- 13. Battery compartment (Battery Optional / Sold separately)



4. Operation

4.1 Basic Operation

1. Connect the power cable to the detector and then connect the adapter to the power outlet. When turning on the detector, it will proceed with a self-check routine that lasts 2 seconds. The display will light the green indicator ✓, which means the equipment is ready to check the bills.
2. Insert the bill to be checked in any direction. When a bill is inserted into the detector's feeding channel, an optical sensor located in this compartment allows the detector to automatically begin the verification process. The bill will be transported inside the unit and analyzed immediately.
3. If the bill is genuine, the green indicator ✓ will light up and sound a single warning beep.
4. If the bill is suspicious, the red indicator ⚠ will light up and sound two warning beeps.

4. Operation (cont.)

4.2 Suspicious Bill Warning

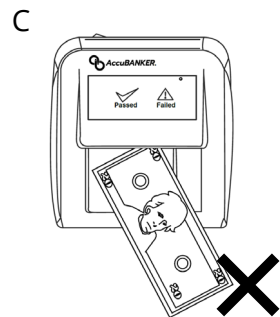
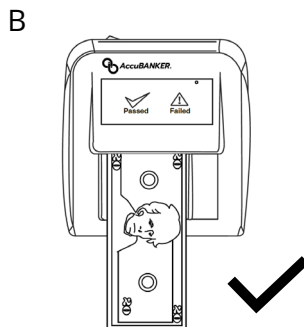
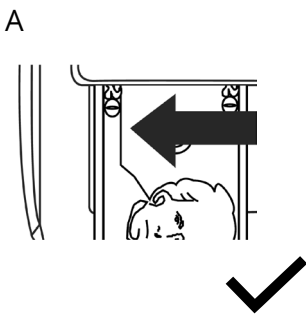
This equipment checks the Magnetic (MG), Infrared (IR), Watermark (WM), Ultraviolet (UV), and other characteristics of the bills analyzed. If any of these security features do not pass the authentication of the bill, a red indicator will display, and two beep notifications sound. If a bill is detected as suspicious, we recommend passing the bill at least three more times in different positions. Bills can be rejected due to different reasons, such as:

- Bills are too crumpled
- Bills are very stained or dirty
- Ripped bills
- Wet bills
- Bills stuck with adhesive tape or stapled

4. Operation (cont.)

4.3 Bill Positioning

- This equipment has the ability to verify the authenticity of bills in any of four positions.
- For correct verification, the bill must be introduced into the feeding channel straight and well-aligned to the left edge, as shown in Figures "A" and "B".
- Avoid introducing the bill into the feeding channel separated from the left side and/or at an angle, as shown in Figure "C".



5. Solutions to Operational Problems

5.1 Preventive Measures

For optimal operation of the detector, take into account the following:

1. Avoid direct exposure to powerful sources of light as well as magnetic interference (ex. microwave, cell phone, or WiFi devices), which will affect the sensors of the detector.
2. Keep the sensors clean.
3. Keep the equipment off when it is not being used for a long period of time.
4. Check the status of the bills and avoid processing:
 - Bills with clips, adhesive tape, or other glue
 - Broken or badly damaged bills
 - Bills affected by chemical agents of any kind

5. Solution to Operational Problems (cont.)

5.2 Maintenance



CAUTION: Before performing any cleaning process, turn off the equipment and unplug it. Please note that problems or defects caused by lack of maintenance are not covered under the warranty.

a) Cleaning of optical sensors

It is important to periodically clean the optical sensors to prevent particles of paper or dust from adhering to them.

b) Internal cleaning of the unit

It is necessary to clean the interior of the equipment once a month or more frequently depending on use. Turn off and unplug the detector before proceeding with this operation.

Use compressed air to remove dust from the inside.

Use a Cleaning Card to remove dust particles adhering to the magnetic heads.

c) Additional recommendations

The equipment needs to be placed in a clean, dust-free environment.

5. Solution to Operational Problems (cont.)

5.3 Jamming

If any bill or other object accidentally jams inside the detector:

1. Turn off the detector immediately.
2. Carefully proceed to remove the bill or object causing the problem.
3. Turn on the detector again and verify it is working at an optimum level.

To avoid jamming, please:

- Ensure there are no foreign objects that could accidentally fall into the equipment (clip, tape, etc.)
- To avoid jamming the bills, position them correctly in the feeding channel.
- Make sure the bill does not have an adhesive tape.
- The bill cannot be very wrinkled or torn.

5.4 Cleaning of Magnetic Heads

1. Turn on the detector and insert a magnetic head cleaning card through the detection channel as if you were going to check a regular bill.
2. Pass the cleaning card several times to help remove dust that is adhering to the surface of the magnetic heads. Wait about two minutes before proceeding to check bills again.

5. Solution to Operational Problems (cont.)

5.5 IR Sensor Calibration

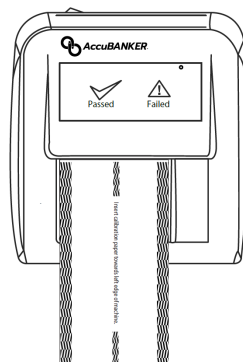
If the detector is rejecting an unusual amount of bills, the equipment may need to have the sensors calibrated.

1. Use conventional 75g office paper to print and cut the D470 IR Calibration template to perform the calibration. Download the template from **www.accubanker.com/pages/support/D470**.
2. Turn on the unit.
3. Pass the paper as if to scan a bill.
4. Place the paper all the way to the left edge of the equipment to activate the feeding motor, but do not let the paper touch the feeding belts. Keep the motor sensor activated for a few seconds until the motor stops and emits a four-beep warning, then remove the paper. (Figure 1)
5. Insert the paper into the detection channel this time as if scanning a bill, the unit will begin flashing both indicators intermittently, keep the paper inside for a few seconds while calibrating the IR sensors. (Figure 2)
6. After the calibration is complete, the unit will give a two-beep warning and turn off the red indicator.
7. Turn off the detector and remove the paper.

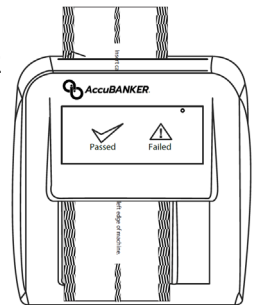
Please scan with your smartphone the QR Code to find more info



1



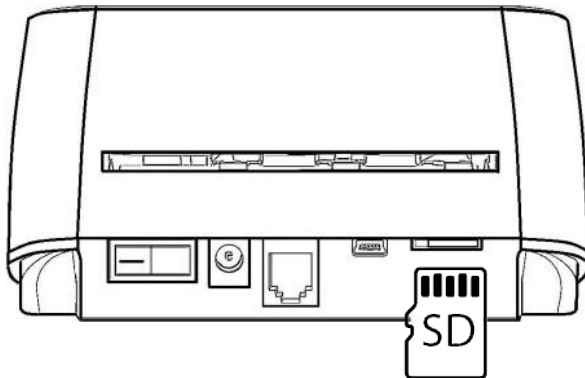
2



6. Software Updates

Steps to perform software update:

1. Copy the programming software to a mini SD card.
2. Turn off the detector.
3. Insert the mini SD card into the update port at the back of the unit as the image shown.
4. Turn on the detector. The two LED indicators in the display will flash intermittently during the programming process.
5. Wait approximately 30 seconds until the detector finishes the update. The red indicator will turn off to show that the new software installation is complete.
6. Turn off the detector and remove the SD card.
7. Turn on the detector and check the update.



7. Specifications

Temperature	32° - 104°F (0° - 40°C)
Humidity	25% - 80%
Display	LED
Processing Speed (new bills)	1 bill/second
Power Source (INPUT)	100 - 240 VAC 60/50 Hz
Power Source (OUTPUT)	12VDC / 1.0 A
Power Consumption	< 5 Watts
Battery Type	Rechargeable Lithium Battery 11.1V 1.05A (Optional)
Accepted Banknote Type	Paper, Polymer, etc.
Accepted Banknote Dimensions (L x W)	2.61 x 6.14 in 6.63 x 15.60 cm
Certifications:	UL
Thermal Printer Paper Dimensions	Dimension: 2.25" x 125' Max. Core Diameter: 0.5"
Product Dimensions (L x W x H)	5.9 x 5.7 x 3 in 15 x 14.5 x 7.6 cm
Product Weight	1.15 lb (0.52 kg)



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