

Banknote Detector

User Manual



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Safety Instructions

Please read the safety instructions before use. Please read all warnings and cautions carefully to avoid damage to the machine and personal injury.

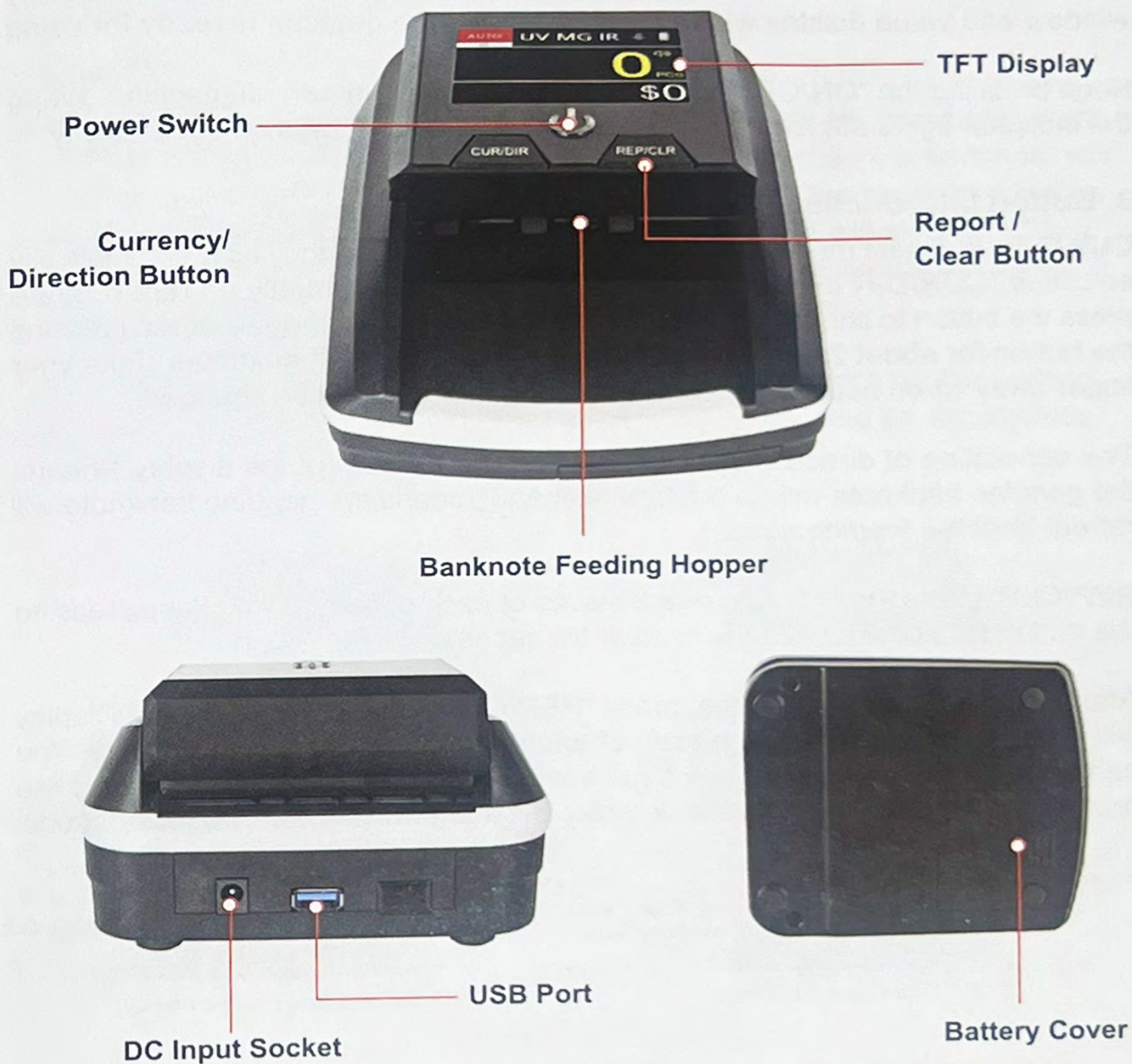
	• Do not operate the machine in areas with high temperature or high humidity since it may cause the unit to malfunction. • Do not disassemble this product. Incorrect re-assembly can cause electric shock. Take it to qualify personnel if repair is required. • Before turning on the power, please make sure that there are no objects obstructing the operation of the rollers and wheels. • Unplug this product from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning the cover.
	• To prevent shock hazard, do not disconnect the plug of AC/DC adapter when hands are wet. • To prevent fire or short circuit, unplug the unit if you want to move it to another position. • Hold the plug disconnecting the unit from the power outlet, do not pull the cord as it can be damaged. • Keep the AC/DC cord from damage. Avoid placing heavy objects on the cord. Do not recommend loading of the power supply. • The unit should be connected to a power supply through this type of AC/DC adapter.
	• The battery storage shall be in the clean and dry ventilation room at the temperature of -5-35°C and shall keep out of fire or heat and avoid touching corrosion elements. • When the battery is unused for a long period, please take the battery out from the machine and need to be recharged once every 6 months. • When the power is low, it will take 15 hours to be fully charged.

CAUTION: " Do not change the position of the optical sensors."

We recommend the user to verify that the box contains all of the items listed here:

- ◆ Banknote Detector 1 Unit
- ◆ Power Adapter 1 Unit
- ◆ User Manual 1 Unit
- ◆ Rechargeable Lithium Battery (optional)

Machine Overview



Operation and Function Introduction

1. Power Supply

- ◆ **DC Power:** Connect the power adapter to a 110V or 220V outlet, then connect the terminal to machine's DC12V input socket.
- ◆ **Lithium Battery (optional):** When the battery was fully charged, the machine can work without power adapter.

2. Turn on/off the machine

Pressing the "ON/OFF" key to turn on the machine, the indicator will light up and machine will start self testing. If the test is successful, the display will show the software version. Next two "0" will respectively be showed on the sheets display window and value display window. In this mode, the detector is ready for using.

Keep pressing the "ON/OFF" key for about 2 seconds to turn off machine. When the indicator lights off, it means the machine has been turned off successfully.

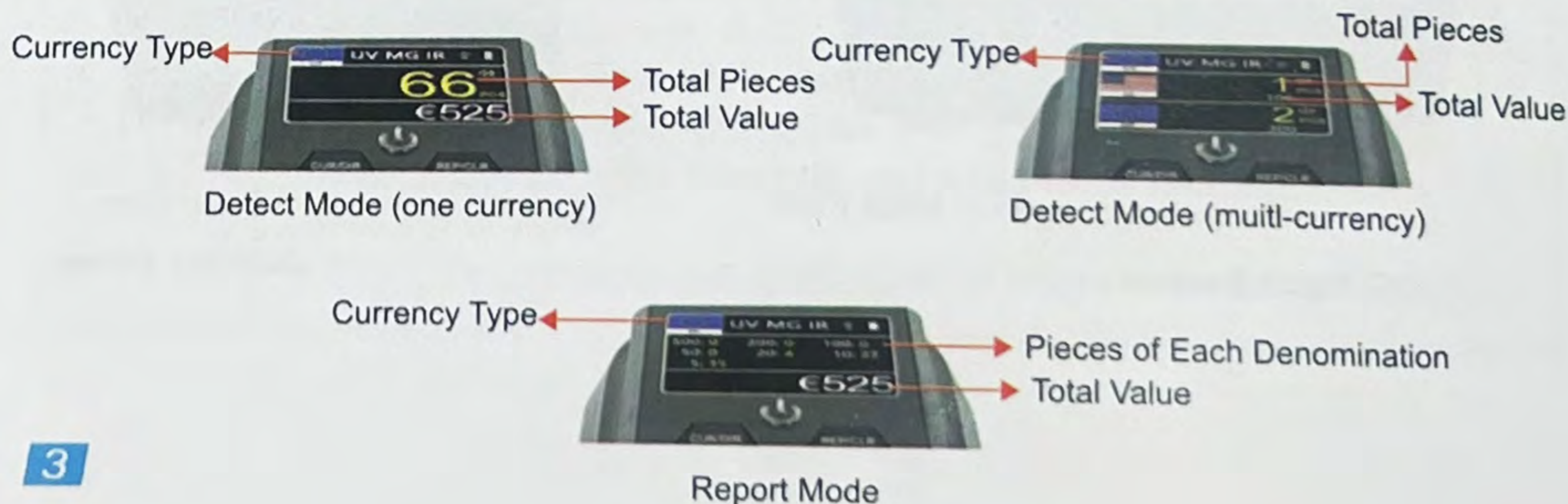
3. Button Introduction

CUR/DIR: In detect mode, machine will recognize the currency type automatically, so press "CUR/DIR button" cant choose currencies manually. In report mode, press the button to choose the currencies to check the report detail. Keep pressing the button for about 2 seconds to choose exit direction of banknotes. Take your finger away when hear "di", then the direction indicator will be changed.

The denotation of direction will be shown on the top part of the display. ↑ means the genuine banknote will go out from exit and ↓ means the genuine banknote will retreat from the feeding hopper.

REP/CLR: press the button to check pieces of each denomination, keep pressing the button for about 2 seconds to clear the records.

After finish detecting banknotes, press "REP/CLR" to enter report mode. Display will show the currency type, pieces of each denomination and total value. You can switch to another currency by pressing "CUR/DIR". While checking the record, if you feed banknote, the detector will automatically exit the report mode.



4. Inserting the banknote correctly

Please insert the banknotes as is shown below pictures (insert in left side). If a banknote was incorrectly inserted, the machine will refuse it and alert.



5. Detecting

If the banknote is a genuine one, the number of pieces will be increased by one and the total value will be added with the current value, then the banknote will go out in the selected exit direction (See Figure 1). When the number of pieces is beyond 999 or the total value is beyond 9999, machine will alert with "di di", machine will stop to accumulate the pieces and value, you need keep pressing "REP/CLR" to clear the records then insert banknotes again.

If the banknote is a suspicious one, it will be rejected and exit from the feeding hopper with 3 beeps, corresponding error code will be showed on display (See Figure 2).



Figure 1



Figure 2

6. Sleep (Power Saving) Mode

The detector will enter sleep mode after 1 minutes of idling to save power. The information on the display window will turn off and only the blue ON/OFF indicator lights up. The machine can be waken up and return to working mode by touching any key or feeding a banknote. if the machine is idle for more 5 minutes again , the machine will power off automatically.

Troubleshooting

Self Test Error Code Display

The detector automatically performs a self test after power on. If one of the following code is showed on the display window, it is probable that the sensor is blocked by banknotes or dust. Please use a brush or a piece of soft cloth to clean the dust on the sensor or remove the banknotes, and then restart the machine.

Error Code	Reason
C1	Motor or code disc abnormal
C2	Left feeding sensor is abnormal
C3	Middle feeding sensor is abnormal
C4	The right IR penetrating sensor is abnormal
C5	The middle IR penetrating sensor is abnormal
C6	The bottom IR reflection is abnormal
C7	The upper IR reflection is abnormal
C8	The bottom 850nm IR sensor is abnormal
C9	The upper 850nm IR sensor is abnormal
C10	The bottom 940nm IR sensor is abnormal
C11	The upper 940nm IR sensor is abnormal
C12	The left MG sensor is abnormal
C13	The middle MG sensor is abnormal
C14	The right MG sensor is abnormal
C15	UV sensor is abnormal
C17	The left IR penetrating sensor is abnormal

Detective Error Codes Display

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

Error Code	Reason
E1	Note length exceed the length limit
E2	Note's length abnormal
E3	Half note
E6	Double note
E7	Slant note
E10	Banknote retreat abnormal
E11	Basic image abnormal
E12	850nm IR feature abnormal
E13	940nm IR feature abnormal
E14	USD's IR feature abnormal
E15	EURO's anti-copy shading feature abnormal
E16	
E17	EURO's watermark abnormal
E18	
E19	
E40	UV feature abnormal
E41	UV image abnormal
E60	No magnetism detected
E61	Magnetic pulse 1 abnormal
E62	Magnetic pulse 2 abnormal
E63	Magnetic pulse 3 abnormal
E64	Note magnetism exceed the magnetism limit
E65	Serial number's magnetism abnormal
E66	Image magnetism abnormal

Important Notices

- ◆ **If the machine keeps alarm or works abnormally, check the following:**
 - Whether the main power supply is within specified range(AC 100V-240V/50-60Hz).
 - Whether the DC output is within specified range : DC 12V±5%.
 - Whether the supply plug is well connected.
 - Whether the built-in battery is sufficient to work.
 - Clear the dust on the sensors.
- ◆ If a banknote is blocked while it is being detected, please open the top cover and get out the banknote to detect it again.
- ◆ Please smooth the banknote before detecting and the banknote must be put in straightly while it is being inserted.

Maintenance

This machine is a precise financial detecting equipment that needs periodic maintenance.

- ◆ Periodically check the voltage of the power supply to ensure that the voltage is within the specified range.
- ◆ Keep the banknote detector in ventilated place and beyond strong sunshine and magnetic field.
- ◆ Periodically clean the sensors: use a piece of cotton within a small amount of alcohol to clean all sensors, rubber wheels and rubber synchronous belt. Keep the surface of sensors away from sharp and hard articles to avoid damage.
- ◆ Do not attempt to disassemble the detector at will.

Features and Specifications

Features:

- ◆ Check the banknotes with UV(ultraviolet), MG(magnetic), IR (infrared), image, paper quality, size, thickness detection
- ◆ Show pieces of banknotes and total value of each currency type
- ◆ Rechargeable lithium battery inside for portable usage (optional)
- ◆ Software can be updated through USB port
- ◆ Suitable for many currencies such as USD, EUR, GBP, TRL, INR, etc.

Specifications:

- ◆ Operating Temperature: 0℃~40℃
- ◆ Storage Temperature: -20℃~65℃
- ◆ Dimension: 155x137x82 (mm)
- ◆ Net Weight: 0.5 kg
- ◆ Power Supply: AC100V~240V 50/60Hz or DC 12V/1.0A
- ◆ Battery: rechargeable lithium battery 11.1V/500mAH
- ◆ Power Consumption: <10W
- ◆ Detecting Speed: <0.5 seconds/piece

Notice: If the machine has some faults that you can't solve, please contact the Technical Support Dept of our company or our agent for services.