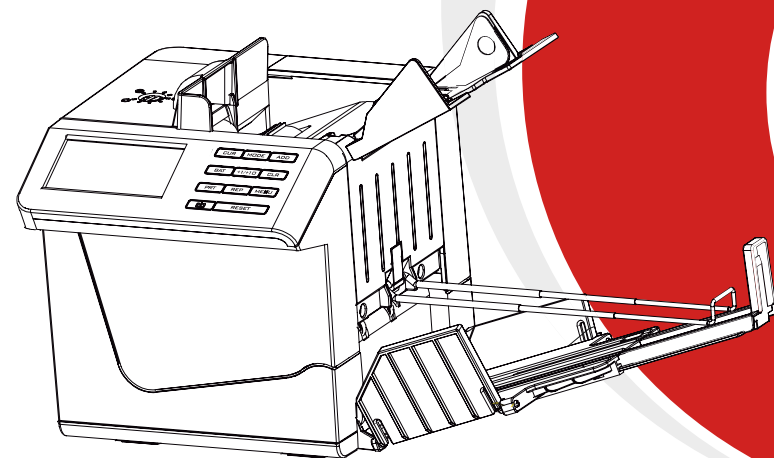


ver.:070915

Designed by Cassida Corporation, USA  
Assembled in China

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# USER MANUAL

## CASSIDA CUBE Compact Value Counter

This manual contains important information on safety measures and operational features. Please read it carefully before operating your value counter, and keep it for future reference.

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## 1. INTRODUCTION

## 1.1 About the Cassida CUBE

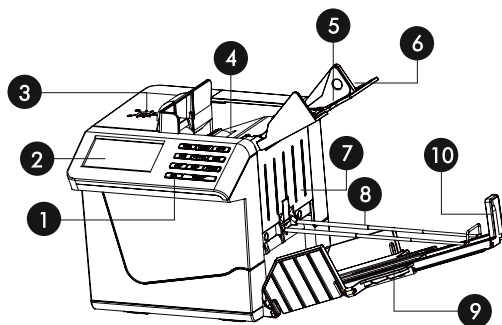
Thank you for choosing the Cassida Cube compact value counter. We hope you enjoy using it.

The Cassida Cube is the most sophisticated compact mixed value counter on the market today. It applies the latest technology to give you the ultimate in counting performance and counterfeit detection.

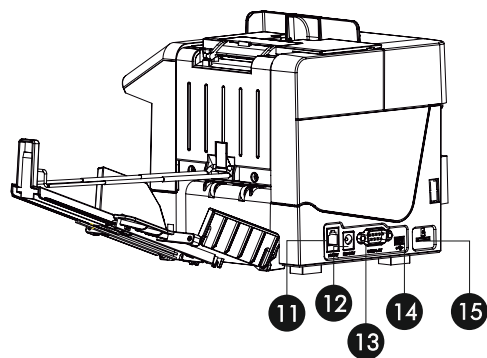
## 1.2 Box contents

- Cassida Cube value counter
- AC/DC power adapter
- User manual
- USB download cable (optional)
- Print transfer cable (optional)
- Micro-printer (optional)
- Cleaning brush
- Micro SD-card (optional)
- Rechargeable battery (optional)
- External LCD display (optional)

### 1.3 Front and rear views

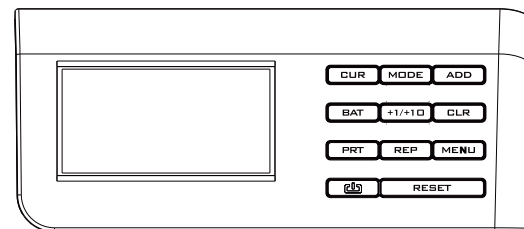



1. Control panel
2. LCD display screen
3. Adjusting screw
4. Main body
5. Hopper
6. Hopper guide
7. Front housing
8. Bill adjustable pressing frame
9. Stacker
10. Bill receiving adjustable plate



11. Printer interface
12. Power socket
13. External display interface
14. USB interface
15. Micro-SD card socket

### 1.4 Control panel



- CUR** : Press this key to select currency type or free count (simple count mode)
- MODE** : Press this key to select a counting mode: Mix & Sort (when currency is selected)
- ADD** : Press this key to enter the ADD function (accumulative counting)
- BATCH** : Press this key to set the batch function
- +1/+10** : Use this key to increase the batch number by 1 (just press) or by 10 (press and hold)
- CLR** : Clear count memory
- PRT** : Press and hold this key to print the counting result report
- REP** : Press this key to view the counting result report
- MENU** : Press this key to enter setting function menu
-  : Press and hold this key to turn on/off the machine

**RESET**

: Press "RESET" to start/stop counting. Press "RESET" once to stop counting, press again to continue

LCD display screen : Displays counting result or error message

### 1.5 Specifications

Counting speed:	250 bills/min
Hopper capacity:	100 bills
Stacker capacity:	100 bills
Batch size:	100, 50, 20,10 or from 1 to 200 with +1/+10
Display:	LCD
Detections:	3D, MG, IR, UV, IMG, RGB
Power supply:	AC100V~240V, 50/60 Hz or DC12V/2.0A
Power consumption:	<20 W
Battery:	2000 mAh
Operating temperature:	0-40 °C
Storage temperature:	-25 - +65 °C
Size:	170x157x150x152 mm
Weight:	1.8 kg (w/o battery)

### 1.6 Important safety notes

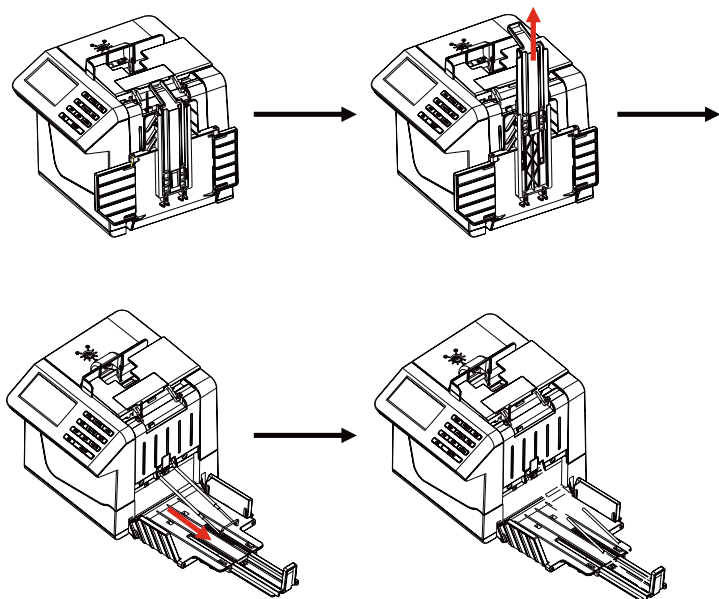
When using this unit, basic safety precautions should always be observed, including the following:

- Read this manual before operation
- The manual should be available to operator

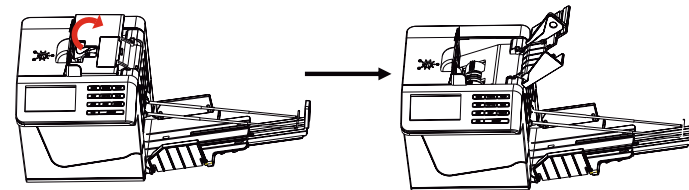
- Do not use this unit in areas where it may be exposed to water or any other liquids
  - Make certain the unit is installed on a flat surface. Do not operate the machine in areas with high temperature, humidity or smoke, as these conditions may prevent proper operation.
  - This unit is designed for indoor use in a ventilated environment. Keep the machine away from direct sunlight or strong directional interior lighting and strong magnetic fields. These could interfere with the counterfeit detection sensors.
  - During operation, do not touch the moving parts of the unit
  - Avoid foreign objects, paper clips, and staples
  - Avoid dropping the unit
  - When finished be sure there are no bills in the hopper or transport system
  - When not using the unit for an extended period of time, disconnect the power cord from the wall outlet
  - Unplug the unit from the wall outlet before cleaning. Use a damp cloth or specifically designed maintenance accessories such as an air duster, soft bristle brush, or cleaning cards.
  - To avoid the risk of electrical shock, do not disassemble this unit. Disassembly will expose you to dangerous voltages and other safety risks. Incorrect reassembly can cause electrical shock when the appliance is subsequently used.
  - Clean the unit regularly
  - Take the unit to a qualified technician when service or repair is required. Do not try to replace any parts yourself. Supplied spare parts are intended for use by qualified repair personnel only.
- Remember the manufacturer is in no way responsible for damage to the unit or injury to the operator in the event of incorrect operation/care of the unit.

## 2. GETTING STARTED

### 2.1 Open the stacker assembly

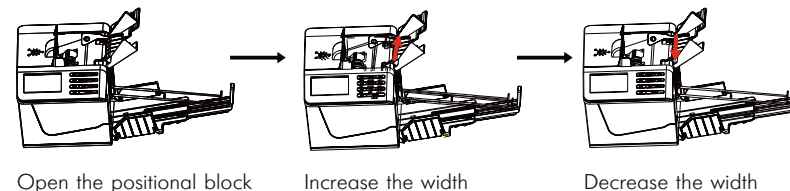


### 2.2 Open the hopper



### 2.3 Adjust the hopper guide

Before start the counting process, set the hopper guide according to the width of the bills w/o gaps.

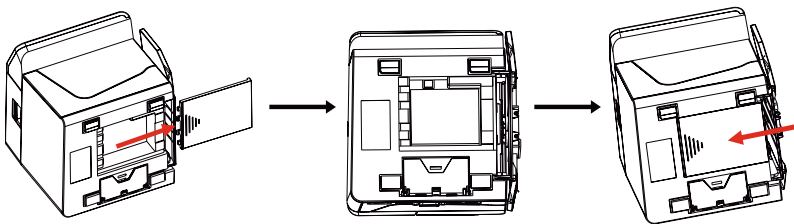


### 2.4 Connect the power source

There are two types of power source can be connected to the counter:

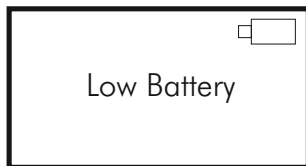
- The AC/DC power adapter: convenient for indoor use
- The battery: convenient for portable use

## 2.5 Install the battery




**NOTE:** Operate following the direction of arrow, mind your hand.

- When the counter connects to the external power supply, it will be charged automatically. The battery status symbol is displayed on the upper right corner of the LCD. A solid symbol means the battery is full and an empty symbol means the battery is insufficient. If the symbol is flashing and changing from solid to empty, it means the battery is being charged. When the battery is poor, "Low battery" will be displayed. It means the battery is too low, you shall stop counting and charge the device.
- The battery status symbol will not be displayed on-screen if a battery is not connected.
- If the device works on a battery, then in working mode, when the counter idles up to 20 minutes, it will turn off automatically.



## 3. LOADING BILLS

Place the machine on a flat surface, then open the underprop foot, ensure that no strong electromagnetic fields or bright light or sunshine are contacting the Cube. Plug the electric socket into AC electric source. If you have purchased an external display, connect it to the external display interface on the back of the counter.

Press "" for 2 seconds, machine will perform a self-test (see Figure 4-1).

If the self-test is successful, the machine will enter into ready state (see Figure 4-2), if some error messages are displayed, please deal with them according to the Troubleshooting in the manual.

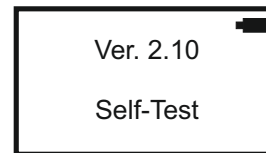


Figure 4-1

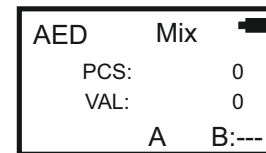


Figure 4-2

It is very important to place the bills into the hopper correctly, because recognition performance of the bills is highly affected by the arrangement of the bills. Bills shall be placed in a neat stack prior to being placed into the hopper. Please avoid counting bills that are wet, excessively dirty, spoiled, folded, curled or with foreign material like clips, bands, etc.

**It will damage and cause malfunction of the machine.**

Put the bills in order (See Figure 4-3), with small denomination bills in the middle where possible. Then set the hopper guide to the minimum position, and put the bills on the hopper flatly, the counter will start counting (See Figure 4-4, Figure 4-5).



Figure 4-3

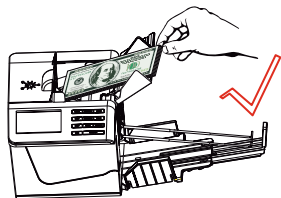


Figure 4-4

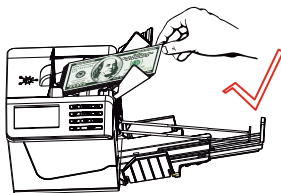


Figure 4-5

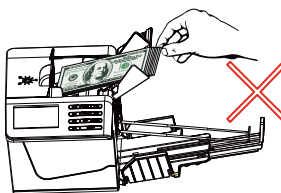


Figure 4-6

The operations as shown in Figure 4-4, Figure 4-5 are correct operations, while operation shown in Figure 4-6 is wrong operation.

When a suspicious bill is detected, the counter will stop immediately and the beeper will emit. The top piece in the stacker is a suspicious one (see Figure 4-7). Remove the suspicious bill, press "RESET" key, the machine will continue counting.

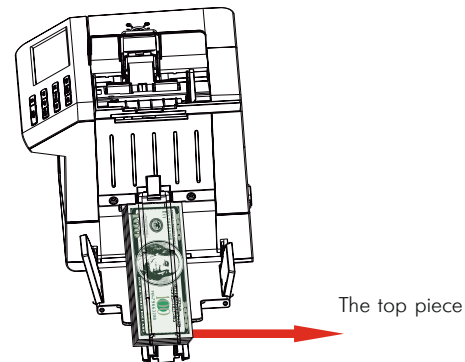


Figure 4-7

**NOTE:** When an error is found and causes the machine to stop automatically, please re-count all bills in the stack.

## 4. OPERATION

### 4.1 Select currency

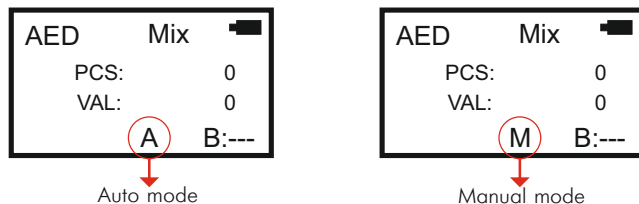
After turning on the machine, the symbol of current currency is displayed on the LCD. To change the currency, press "CUR" key. The symbol of selected currency will be displayed on the screen.

## 4.2 Select Auto/Manual mode

To switch between Auto (A) and Manual (M) start modes, enter setting menu with pressing "MENU" key, then "CUR" key, then press "ADD" key to select Auto mode ON or OFF. To confirm and leave settings menu, press "MENU" key.

In Auto mode "A" will be displayed on the screen. The machine starts counting automatically, when the bills are placed into the hopper.

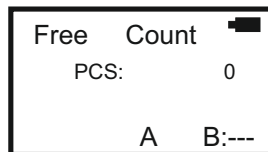
In Manual mode "M" will be displayed on the screen. The machine starts counting, when the user presses "RESET" key.



## 4.3 Select counting mode

### A. Simple Count Mode

This mode can be used for various currencies. This mode is used to count the total number of bills. To start this mode, select "Free Count" by pressing "CUR" key.



## B. Mixed Count Mode

To start MIXED mode, select the currency first by pressing CUR key, then select "MIX" by pressing MODE key. This mode is used to count a stack of mixed denominations of a selected currency. Total number (PCS) and total value (VAL) will be displayed on the screen. When operation is complete, the user may press REP key and the detailed report will be displayed on the screen. By pressing REP key once again, the user may return to the main screen.

## C. Sort Count Mode

To start SORT mode, select the currency first by pressing CUR key, then select "Sort" by pressing MODE key. This mode is used to count and sort bills by one denomination which is automatically determined by the first passing bill. The first bill in the hopper determines the counting denomination. If the denomination on the second, or other bills in the stack, differs from the first bill, the machine will stop the operation. Once the bill with the different denomination is removed from the stacker, press "RESET" key to resume the operation. Total number (PCS) and total value (VAL) will be displayed on the screen. When operation is complete, the user may press REP key and the detailed report will be displayed on the screen. By pressing REP key once again, the user may return to the main screen.

In Mix and Sort modes, after detecting, the machine will provide a report of all counted bills by pressing "REP" key. The detailed report will be displayed on the screen as follows:

Denomination	Piece	Value
5:	0	0
10:	0	0
20:	5	100
50:	2	100
100:	1	100
200:	1	200
500:	1	500
1000:	0	0
Sum:	10	1000
Total number		Total value

Press any key to exit the report mode automatically. Press "CLR" key to clear the count memory.

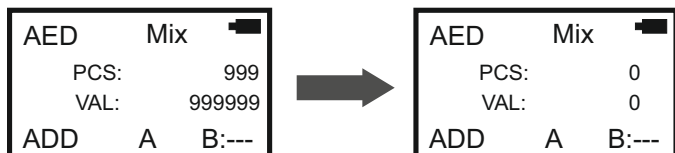
#### 4.4 Printing function

If the printer is connected to the machine, press and hold "PRT" key, "Print..." will be displayed on the LCD (shown in the following figure) and the report will be printed. After printing is completed, the Cube returns to its ready state.



#### 4.5 Select accumulative counting

When you need an accumulative counting, press "ADD" key on the control panel and the "ADD" will be displayed on the LCD. The machine will count on the basis of the original number displayed on the LCD. After bill counting is finished, the number displayed on the LCD is the sum of the multiple counts just completed. When accumulative pieces reach 999+1 or accumulative value reaches 999999+1, the count and/or value will be reset to 0.

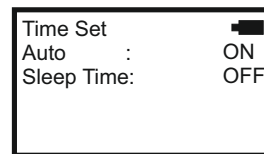


#### 4.6 Select batch counting

When you need a batch counting, press "BAT" key, when "100" is displayed on the preset window, it shows the batch function has been turned on, the batch number is 100. Each time when you press "BAT" key, 100, 50, 20, 10 and "---" will be displayed in turn repeatedly. If the LCD displays "---", the batch function is disabled. You also can press or hold "+1/+10" key to increase the batch number by 1 or 10 according to desire. The batch number can be selected in the range of 1~200. After setting the batch number, put the bills on the hopper and the machine will count automatically. When the unit reaches its batch number, the machine will stop automatically.

### 5. TIME SETTINGS OF REAL TIME

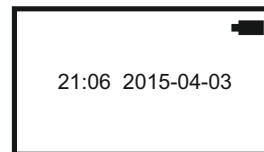
To adjust the time settings, enter Settings menu by pressing MENU key. To enter into time face interface, press "ADD" key. It will display like below:



**Time Set:**                      **Setting time**  
**Auto:**                         **Setting Auto/Manual mode**  
**Sleep Time:**                **Setting sleep time (5 minutes, 10 minutes or off)**

Click "CUR" key to select the option continuously.  
 Click "ADD" key to change the parameter.

When reach the Time Set option, press "ADD" to enter into time set interface, it will display like below:



Press “CUR” key to switch the value that need modify, click “ADD” key (+) and “MODE” key (-) to change the parameter of time.

Press “MENU” key to save the change and exit settings menu automatically.

## 6. TROUBLESHOOTING

### 6.1 Self-test error message display and solutions

The machine performs a self-test automatically after powering on. If one of the following error messages is displayed on the LCD, usually it is because the sensor is blocked by bills or dust. Please use a brush or piece of soft cloth to remove dust from the sensor. Remove the bills and restart the machine.

Error message display	Solution
PassA counting sensor PassB counting sensor PassC counting sensor PassD counting sensor	Remove the bills and remove dust from the counting sensor. Additionally confirm the sensors are aimed at the axis of the light beam.
Upper IRA sensor Upper IRB sensor Upper IRC sensor Upper IRD sensor Lower IRD sensor Lower IRF sensor Lower IRG sensor Lower IRH sensor Upper color sensor Lower color sensor Upper spectrum sensor Lower spectrum sensor	Remove the bills and clear away the dust
Banknote feeding sensor	Remove the bills and clear away the dust

Error message display	Solution
Magnetic A sensor Magnetic B sensor Magnetic C sensor Magnetic D sensor	Remove the bills and clean the magnetic sensor
Internal memory fault	Resume to factory setting
Rotate speed sensor	Clean the code wheel and sensor, or replace the rubber-belt

### 6.2 Detective error message display and solutions

If any of the following error messages are displayed during counting, use the following solutions to correct the problems after the machine has stopped.

Error message display	Causes and solutions
Incomplete notes	Half piece or incomplete bill. Remove it and press “RESET” to continue counting
Magnetic feature fail IR error UV error Image error Paper error Spectrum error Holograph error Denomination different	Counterfeit or suspicious bill. Remove it and press “RESET” to continue counting.

Error message display	Causes and solutions
Slant notes	Bill tilt. Press "RESET" to continue counting. If it occurs frequently, adjust the adjusting screw toward the counter-clockwise direction.
Double notes Chained notes	Some bills are connected or overlapped. Put the bills in the bill stacker back to the bill hopper to count again. If it occurs frequently, adjust the adjusting screw toward the clockwise direction.
Passing error	Press "RESET" key, or press the handle up to open the bill transport path, then remove the bill and clear away the dusts.

## 7. MAINTENANCE, WARRANTY AND CONTACT INFO

### 7.1 Maintenance

Regular maintenance will ensure accurate operation of the unit, and will prolong its service life. Periodically check the voltage of the power supply to ensure that the voltage is within the specified range. Keep the counter in ventilated place and beyond strong sunshine and strong magnetic field. Periodically clean the sensors: use a piece of cotton with 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.

**ATTENTION:** The interior cleaning of the unit should only be completed by professional engineers.

**Regular maintenance procedures are not included into the warranty**

### 7.2 Warranty

Warranty is effective for a period of one year from the date of purchase. In most cases, the malfunction of the machine can be resolved by cleaning the unit.

- Customer should allow Cassida the time and opportunity to test and diagnose the machine to determine warranty and non-warranty claims.
- After receiving and unpacking the units, 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 and transportation including mechanical damage.
- Manufacturer is entitled to introduce updated software, not described in the current user manual.

#### Non-warranty service:

Cassida can perform maintenance and cleaning for an extra fee. For a non-warranty repair or maintenance quotation, contact Cassida Technical Support.

- After receiving and unpacking the units, 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 and transportation including mechanical damage.
- Manufacturer is entitled to introduce updated software, not described in the current user manual.

**Non-warranty service:**

Cassida can perform maintenance and cleaning for an extra fee. For a non-warranty repair or maintenance quotation, contact Cassida Technical Support.

Warranty service is not available in the following cases:

- Cleaning of the unit from dust and mud
- Absence of a warranty card or an incorrectly filed warranty card
- Operation or maintenance requirements detailed in the user manual are not met
- There is mechanical damage to the unit or the seal portions of the unit have been opened or tampered with
- There are foreign objects or liquid inside of the unit.

**Shipping:**

The warranty does not cover shipping cost to or from Cassida Technical Service Center. Before shipping the unit to the Cassida Technical Service Center the warranty card must be filled out with model full name and number, serial number, cause for service, errors occurred.

**7.3 Contact information****Technical Support contact information:**

e-mail: [fabin.johny@cassida.me](mailto:fabin.johny@cassida.me)  
tel: 042 739 328

[www.cassida.me](http://www.cassida.me), [www.cassidausa.com](http://www.cassidausa.com)

When contacting Cassida Technical Support, please have the following:

- Product model – Located on the back side of your currency counter
- Serial number – Located on the back side of your currency counter
- Nature of the problem – What happens, and when did it happen? Did the machine display an error message?
- Steps already taken to resolve the problem, and the results.

Office # 101,  
Biyat Complex (Landmarks: Emirates Billiard Centre)  
Hor Al Anz East, Behind Al Mamzar Centre  
Dubai - United Arab Emirates  
PO box 454867

