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 and quickstart guide
- Cleaning brush
- Print transfer cable
- 2 calibration cards
- USB download cable (optional)
- Micro printer (optional)
- Micro SD-card (optional)
- Rechargeable battery (optional)
- External LCD display (optional)
1. Control panel
2. LCD display screen
3. Adjusting screw
4. Main body
5. Hopper
6. Hopper guide
7. Front housing
8. Bill pressing frame
9. Stocker
10. Bill receiving adjustable plate

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

- **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
- **+10-10**: Use this key to increase the batch number by 1 (just press) or by 10 (press and hold)
- **CLR**: Clear count memory
- **PRNT**: 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
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.
2.1 Open the stacker assembly

1. Open
2. Extend to line on label
3. Snap in
4. Open bill pressing frame

Note: For optimal counting of US currency, the hopper guide should extend no farther than 16.5 cm (approximately 6.5 inches) from edge of Cube. Please follow guidelines shown on the affixed stickers.

2.2 Open and adjust the hopper

1. Open

USD = Narrowest setting

2.3 Open tilt stand

Unfold from bottom rear
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

1. Remove Cover
2. Install Battery
3. Replace Cover

Before first use, the rechargeable battery should be installed.

- 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 should 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 tilt stand, ensuring that no strong electromagnetic fields, 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 \[ (\text{button}) \] for 2 seconds, machine will perform a self-test (see Figure 3-1).

If the self-test is successful, the machine will enter into ready state (see Figure 3-2). If some error messages are displayed, please deal with them according to the Troubleshooting in the manual. See section 6.

![Figure 3-1](image1)

![Figure 3-2](image2)

Ver. 2.10

Self-Test

USDC USD Mix 0
PCS: 0
$ VAL: 0

ADD A B:---

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 should be placed in neat stacks 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.
Arrange a stack of bills with smaller denominations in the middle, where possible. Then set the hopper guide to the position where it just touches the edges of the bills. Lay the bills flatly on the hopper and the Cube will begin counting.

Insert bills with edges aligned. Counting begins automatically.

When a suspicious bill is detected, the counter will stop immediately and the machine will emit a beep. The top bill in the stacker is a suspect bill. Remove the top bill, press [RESET] and the machine will continue counting.

NOTE: Certain errors, such as double notes, chain notes and passing errors will cause the Cube to stop automatically. If this occurs, please recount all bills in the stack.

4. OPERATION

4.1 Select Auto/Manual mode

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

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].

NOTE: Certain errors, such as double notes, chain notes and passing errors will cause the Cube to stop automatically. If this occurs, please recount all bills in the stack.

4.2 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].

Free Count

PCS: 0

A B: ---
B. Mixed Count Mode

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

C. Sort Count Mode

To start SORT mode, select "Sort" by pressing MODE. 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 sorting denomination. If the denomination on the second, or other bills in the stack, differs from the first bill, the machine will stop and alert the user. Once the bill with the different denomination is removed from the stacker, press RESET 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 CLR and the detailed report will be displayed on the screen. By pressing CLR once again, the user may return to the main screen.

In Mix and Sort modes, after counting is complete, the machine will provide a report of all counted bills when CLR is pressed. The detailed report will be displayed on the screen as follows:

```
<table>
<thead>
<tr>
<th>Denomination</th>
<th>Piece</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD Mix</td>
<td>10</td>
<td>1000</td>
</tr>
<tr>
<td>ADD M B:-----</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

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

4.3 Select currency or free counting

When turning on the machine, the symbol of current currency is displayed on the LCD. To switch between US currency and Free Count (for counting coupons or checks) press CUM.

4.4 Printing function

To connect the Cube to a printer, follow the diagram as shown. The Cassida Cube has a special print cable that is included with your unit.

When the Cube is connected to a printer, power on the Cube first, then turn on the printer, to assure connectivity.

If the printer is connected to the machine, press and hold PRT. "Print..." will be displayed on the LCD as shown below and the report will be printed. After printing is completed, the Cube returns to its ready state.

Press...
4.5 Select accumulative counting

After bit 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

To select a batch amount, press \[BAT\]. When "100" is displayed on the preset window, it shows the batch function has been turned on. Each time you press \[BAT\], 100, 50, 25, 20, and 10 will be displayed in turn. If the LCD displays "---", the batch function is disabled. You also can press or hold \[+/10\] 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, load bills on the hopper and begin counting. When the unit reaches its batch number, the machine will stop automatically so the batched bills may be removed from the stacker. To turn off batch counting, press \[CLR\].

Note: Batch counting applies to the number of bills, not the amount.

5. SLEEP AND TIME SETTINGS

To adjust the time settings, enter the Settings menu by pressing \[MENU\].

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

Changing the set time:

- Press \[CUR\] to select the desired option.
- Press \[ADD\] to change the parameter.
- Press \[CUR\] to select the option to be modified. Press \[ADD\] (+) and \[MODE\] (-) to increase or decrease the parameter’s value.
- Press \[MENU\] to save the change and exit.
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 debris, or a jammed bill or. Please use a brush compressed air to remove dust from the sensor. Remove any jammed bills and restart the machine.

<table>
<thead>
<tr>
<th>ERROR MESSAGE DISPLAY</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PassA counting sensor</td>
<td>Remove all bills and clean the counting sensor.</td>
</tr>
<tr>
<td>PassB counting sensor</td>
<td></td>
</tr>
<tr>
<td>PassC counting sensor</td>
<td></td>
</tr>
<tr>
<td>PassD counting sensor</td>
<td></td>
</tr>
<tr>
<td>Upper IRA sensor</td>
<td>Remove all bills and clean any sensors.</td>
</tr>
<tr>
<td>Upper IRB sensor</td>
<td></td>
</tr>
<tr>
<td>Upper IRC sensor</td>
<td></td>
</tr>
<tr>
<td>Upper IRD sensor</td>
<td></td>
</tr>
<tr>
<td>Lower IRA sensor</td>
<td></td>
</tr>
<tr>
<td>Lower IRB sensor</td>
<td></td>
</tr>
<tr>
<td>Lower IRC sensor</td>
<td></td>
</tr>
<tr>
<td>Lower IRD sensor</td>
<td></td>
</tr>
<tr>
<td>Upper IRG sensor</td>
<td></td>
</tr>
<tr>
<td>Lower IRG sensor</td>
<td></td>
</tr>
<tr>
<td>Upper IRH sensor</td>
<td></td>
</tr>
<tr>
<td>Lower IRH sensor</td>
<td></td>
</tr>
<tr>
<td>Upper color sensor</td>
<td></td>
</tr>
<tr>
<td>Lower color sensor</td>
<td></td>
</tr>
<tr>
<td>Upper spectrum sensor</td>
<td></td>
</tr>
<tr>
<td>Lower spectrum sensor</td>
<td></td>
</tr>
<tr>
<td>Banknote feeding sensor</td>
<td>Remove all bills and clean the hopper assembly.</td>
</tr>
<tr>
<td>Magnetic A sensor</td>
<td>Remove all bills and clean the magnetic sensor</td>
</tr>
<tr>
<td>Magnetic B sensor</td>
<td></td>
</tr>
<tr>
<td>Magnetic C sensor</td>
<td></td>
</tr>
<tr>
<td>Magnetic D sensor</td>
<td></td>
</tr>
<tr>
<td>Internal memory fault</td>
<td>Reset unit to factory settings by holding both [ ] and [ MENU ] while the unit is off. After a self test, “Set default parameter” will display. The unit will return to its normal state within seconds.</td>
</tr>
<tr>
<td>Rotate speed sensor</td>
<td>Clean the encoder wheel and sensor, or replace the drive belt. This will need to be done by a trained specialist. See section 7.4 for contacting a Cassida service provider.</td>
</tr>
</tbody>
</table>
6.2 Defective bill 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.

<table>
<thead>
<tr>
<th>ERROR MESSAGE DISPLAY</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomplete notes</td>
<td>Half or incomplete bill. Remove the bill from the stacker and press <strong>RESET</strong> to continue counting.</td>
</tr>
<tr>
<td>Magnetic feature fail</td>
<td>Counterfeit or suspicious bill. Remove the bill from the stacker and press <strong>RESET</strong> to continue counting.</td>
</tr>
<tr>
<td>IR error</td>
<td></td>
</tr>
<tr>
<td>UV error</td>
<td></td>
</tr>
<tr>
<td>Image error</td>
<td></td>
</tr>
<tr>
<td>Paper error</td>
<td></td>
</tr>
<tr>
<td>Spectrum error</td>
<td></td>
</tr>
<tr>
<td>Holograph error</td>
<td></td>
</tr>
<tr>
<td>Denomination different</td>
<td></td>
</tr>
<tr>
<td>Slant notes</td>
<td>Bill fit. Press <strong>RESET</strong> to continue counting. If it occurs frequently, adjust the adjusting screw toward the counter-clockwise direction.</td>
</tr>
<tr>
<td>Double notes</td>
<td>Some bills are stuck together or overlapped. Remove all bills and recount. If these errors occur frequently, adjust the adjusting screw slightly clockwise.</td>
</tr>
<tr>
<td>Chained notes</td>
<td></td>
</tr>
<tr>
<td>Passing error</td>
<td>Press <strong>RESET</strong>. Open the bill transport path to remove the bill and recount all bills.</td>
</tr>
</tbody>
</table>

7. Maintenance, Warranty and Contact Info

7.1 Maintenance

Regular maintenance will ensure accurate operation of the unit, and will prolong its service life. Keep the counter in a ventilated place and away from direct sunshine and strong magnetic fields. Periodically clean all sensors using a soft brush or compressed air. Keep the surface of sensors away from sharp and hard articles to avoid damage.

ATTENTION: The Cassida Cube should be cleaned frequently to keep it performing properly. We suggest opening the unit and using a can of compressed air to remove dust from interior spaces. Be certain to avoid contact between the nozzle and any surfaces, to assure no damage occurs to sensors.

Cassida can service your Cube, if necessary, even if the repair is not covered under than warranty. To get a maintenance or service quote, please log on to Cassidausa.com/support and fill out a support form.

7.2 Warranty

Our goal is to make Cassida your lifetime work partner. That's why Cassida products are subject to stringent quality control measures and are backed by a solid one year parts and labor warranty.

Note: Cleaning is not covered by warranty.

To activate your warranty in the US or Canada, please register your product online by visiting www.cassidausa.com/register.html.

In many cases a unit malfunction can easily be corrected by performing a thorough cleaning. This requires disassembly of the unit to clean each individual sensor. This cleaning is not covered by warranty and should be performed only by your local dealer or the Cassida Technical Service Center.
Cassida is happy to service your Cube even if it is not covered under warranty. To request service please log on Cassidausa.com/service and fill out a form requesting service.

7.3 Shipping
The warranty does not cover the cost of shipping to Cassida's Technical Service Center.

7.4 Contact Information
Technical support contact information:
Email: support@cassidausa.com
www.cassidausa.com/support.html
www.cassidausa.com