



# FF-3000 Money Counter Operating Manual

- Thank you for purchasing our FF-3000 money counter.
- This user guide provides instructions for the use and operation of the machine.
- We recommend all customers to read the manual thoroughly, in order to become familiarized with the controls and operation of the unit.

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## 1. General Introduction

The FF-3000 is a fast, accurate and reliable banknote counting device. This machine uses our decades of experience designing, building, and servicing currency counting technologies. It has a compact and stylish design and features integrated electronics and multi-functional capabilities. More than just looks and hi-tech electronics - the FF-3000 is ready to handle the most demanding tasks, from counting large amounts of cash, to batching custom money quantities. This gives you, our customer, the power to dramatically reduce labor-time and counting losses in a small and affordable package.

The FF-3000 is an invaluable tool for banks, casinos, supermarkets, movie theaters, retail shops and many other environments where banknotes are used.

When opening the box, verify that all the items described below are included. If any item is damaged or missing, contact the dealer where the unit was purchased.

- |                   |                                |
|-------------------|--------------------------------|
| 1. Machine        | 5. Fuse                        |
| 2. User manual    | 6. Conveyor belt (optional)    |
| 3. Power cord     | 7. External display (optional) |
| 4. Cleaning brush | 8. Rubber roller (optional)    |

## 2. Important Safety Instructions

When using this money counter, basic safety precautions should always be followed to reduce the risk of fire, electric shock or injury to persons, including the following:

<b>Warning</b>	
	Do not use this product in areas where it may be exposed to water or other liquids.
	Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
	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 -like the rear cover plate- may expose you to dangerous voltages or other risks. Incorrect re-assembly 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.

<b>Caution</b>	
	When unplugging the power plug, 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 period of time, remove the power plug from the wall outlet.

### 3. Operating Techniques

- Connect the power cord to the machine, then to a power source and turn the power switch on; the machine will conduct a self-check by spinning the counting wheels several times. The counting number display will show "0" when the machine is ready.
- To avoid bill-feeding and/or detecting errors, please inspect your note(s) prior to inserting into the FF3000 to see if there are any physical defects, such as:
  1. Notes mended with tape
  2. Washed notes
  3. Very dirty notes
  4. Torn notes or notes missing pieces

Remove any such banknotes before inserting your batch into the FF3000.

### 4. Correct Feeding of the Banknotes

Banknotes need to be arranged in an orderly manner and placed properly between the counting guides, please refer to the following pictures:

**First Method:** Arrange notes, “spread” the notes so they are slightly angled, and feed into the hopper

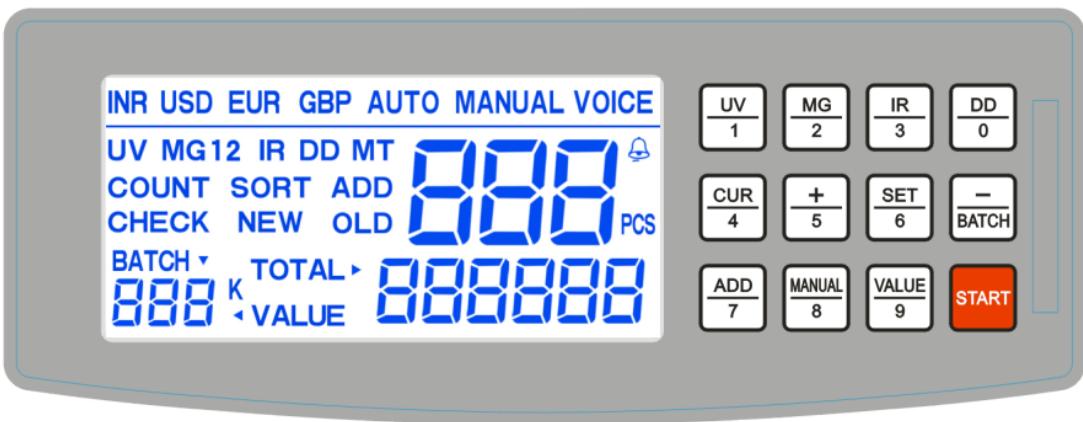


**Second Method:** Place stacked notes leaning forward into the hopper area, “tilt” the notes back so that the slide gently into the hopper feeding area.



**Note!** Some people find it easier to select “manual” which allows the user to properly align the banknotes in the feeder hopper, and THEN press “start” to initiate the counting.

## 5. Control Panel Introduction



**“UV” button:** press this button to turn on/off the UV detection.

**“MG” button:** press this button to turn on/off the MG detection.

**“IR” button:** press this button to turn on/off the IR detection.

**“DD” button:** press this button to turn on/off the DD detection.

**“CUR” button:** press this button to choose currency.

**“BATCH” button:** press this button to turn on/off the BATCH function.

**“ADD” button:** press this button to turn on/off the ADD function.

**“MANUAL” button:** press this button to choose MANUAL or AUTO counting mode.

**“VALUE” button:** press this button to enter denomination calculation mode.

**“SET” button:** press this button to enter sensitivity adjustment of sensors.

**“+” button:** when in SET mode, press “+” once to add “1”. If you keep pressing continuously, the parameter number will be added continuously. When in Value Calculation mode, press “+” to choose denomination.

**“-” button:** when in SET mode, press “-” once to reduce “1”. If you keep pressing continuously, the parameter number will be reduced continuously. When in Value Calculation mode, press “-” to choose denomination.

**“START” button:** press this button to clear the counting number.

## 6. Functions Introduction

### Counting Function

Once the banknotes are correctly placed in the hopper plate, the machine will start counting automatically. The number of counted banknotes will be shown on the counter display. If a second bunch of notes is counted, the counter display will clear and the “batch display” in turn will show the number of banknotes counted in the previous count.

### UV (Ultraviolet) Counterfeit Detection Function

The UV detection function is selected or deselected by pressing the UV button in the

function console. The UV function can check all types of banknotes which contain UV features.

By default, the UV function is automatically turned on when the FF-3000 is powered up. If the machine detects a bill that fails the UV detection method, it will stop counting and emit a beeping sound. The display will show the message "A or E10", alerting the user of the presence of a problem note. Remove the suspect note and press "START" to continue counting.

### **MG (Magnetic) Counterfeit Detection Function**

The MG detection function is selected or deselected by pressing the MG button in the function console. The MG function is able to check all types of banknotes which contain Magnetic features.

By default, the MG function is automatically turned on when the unit is powered up. If the machine detects a bill that fails the MG detection method, it will stop counting and emit a beeping sound. The display will show the message "b or E6X", alerting the user of the presence of a problem note. Remove the suspicious money and press "START" to continue counting.

### **IR (Infrared) Counterfeit Detection Function**

The IR detection function is selected or deselected by pressing the IR button in the function console. The IR detection is used to detect Infra-Red response. Infrared ink is a common security printing method for banknotes.

By default, the IR function is turned on when the unit is powered up. If the machine detects an invalid IR response, it will stop counting and emit a beeping sound. The display will show the message "C or EC0", alerting the user of the presence of a bill that fails the IR detection method. Remove the problem bill and press "START" to continue counting.

### **DD Detection Function**

The DD detection function is selected or deselected by pressing the DD button in the function console. The DD detection is used to detect the banknote with different width.

Through this function, the width of the first counted banknote will be memorized, and if a wider one or narrower one is detected (width difference must be more than 5mm), it will stop counting and emit beeping sound. The display will show the message "d or E8X", alerting the user of the presence of a suspicious money. Remove the counterfeit money and press "START" to continue counting.

### **Total Value Calculation Function**

The Total Value Calculation function is selected or deselected by pressing the VALUE

button in the function console. Press and hold the VALUE button for 2 seconds to exit this function.

To utilize this function, the user can press the VALUE button repeatedly to select the appropriate denomination manually. For example, when you select "\$100" and count 10pcs of \$100 bills, the display will show the total value of \$1000. Please note that the FF-3000 does not automatically identify denomination. This mean, if you select "\$100", and insert bills that are not \$100 notes, the VALUE function will still count those notes as \$100 bills.

Under this function, the user can turn on the ADD function if want to combine the counts of multiple denominations. Press VALUE button or "+" "-" button to choose the denomination accordingly. With "ADD" selected the next banknotes placed in the FF3000 will be counted and added to the previous total value.

### **Automatic or Manual Start Mode Function**

**Automatic Start Mode:** The machine begins counting automatically when banknotes are placed in the hopper.

**Manual Start Mode:** Counting does not begin until the "START" button has been pressed.

### **Batch Function**

The batch function can be selected or deselected by pressing the "Batch" button. The batch number will be shown on batch display.

**First Press:** the batch number is 100

**Second Press:** the batch number is 50

**Third Press:** the batch number is 20

**Fourth Press:** the batch number is 10

**Fifth Press:** the batch function is canceled.

The custom quantity can be set by pressing "+" or "-" button to increase or decrease the batch number. If keep pressing "+" or "-" button for about 2 seconds, the batch number can increase or decrease continuously. If the machine has number keys, you can set the batch number much more convenient. To clear this function, press the "BATCH" button until the indicator is off.

Under the batch counting mode, once the hopper is loaded, the machine will start counting and will stop when the counted quantity reaches the preset batch quantity.

To repeat the batch counting operation under the same preset batch quantity, just remove the counted banknotes from the stacker. The machine will batch the next group of banknotes under the same settings.

If you wish to keep batching without removing the banknotes from the stacker, press the "START" button.

### **ADD Function**

The "ADD" function can be performed by pressing the "ADD" button (indicator must light up). In this case, subsequent banknotes placed in the hopper will be counted and added to the previous counted quantity. The total amount of added banknotes will be shown on the counter screen. To switch off the function, press the "ADD" button (the indicator must be OFF).

### **Half-note Detection Function**

The half-note detection is automatically turned on by default when the machine is powered up. If the machine detects a half-note when counting, it will stop and emit beeping sound, while the display will show the message "F or E4X", alerting the user the presence of a suspicious note. Remove the suspicious note and press "START" button to continue counting. Please note that the suspicious money will be added to the counted quantity.

### **Chained-note Detection Function**

The chained-note detection is automatically turned on by default when the machine is powered up. If the machine detects a chained-note when counting, it will stop and emit a beeping sound, while the display will show the message "d or E8X" , alerting the user the presence of a suspicious note. Remove the suspicious note and press "START" button to continue counting. Please note that the suspicious money will be added to the counted quantity.

### **Double-note Detection Function**

The double-note detection is automatically turned on by default when the machine is powered up. If the machine detects a double-note when counting, it will stop and emit beeping sound, while the display will show the message "C or ECO" , alerting the user the presence of a suspicious note. Remove the suspicious note and press "START" button to continue counting. Please note that the suspicious money will be add to the counted quantity.

## **7. Hopper Plate Adjustment**

When the banknote feeding is rough or the banknote counting is inaccurate, it may be solved by adjusting the vertical adjusting screw as well as the gap between the resistance rubber and the rubber wheel. You can test by holding a banknote in the hopper and if you feel the pull, the hopper is adjusted properly.

Turn it clockwise to decrease gap in order to add friction (tight).

Turn it anticlockwise to increase gap in order to reduce friction (loose).



## 8. Error Code and Solution

The display may show error code when counting, which means there is problem with the machine. Refer to the following sheet to find way to solve it.

### BILL DETECTION ERROR CODES

Error Code	Reason	Solution
A or E10	Fake note detected by UV	Remove the fake note from the stacker, press "START" to continue
b or E6X	Fake note detected by MG	Remove the fake note from the stacker, press "START" to continue
C or ECO	Double note detected by IR	Remove the double note from the stacker, press "START" to continue
d or E8X	Chain note or different width note detected	Remove the suspicious note from the stacker, press "START" to continue
F or E4X	Half note detected	Remove the half note from the stacker, press "START" to continue

### FF3000 SELF-DIAGNOSTIC TEST ERROR CODES

CE1	Problem with the UV sensor	Clean the sensor or replace it
CE2	Problem with code disc sensor or big motor	Replace the sensor or big motor
CE3	Problem with left counting sensor	Clean the sensor or replace it
CE4	Problem with right counting sensor	Clean the sensor or replace it
CE5	Problem with hopper sensor	Clean the sensor or replace it
CE7	Problem with MG sensor	Replace the MG sensor
CE8	Problem with stacker sensor	Clean the sensor or replace it

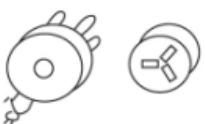
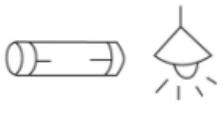
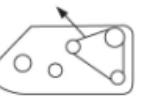
Generally speaking, most of the self-diagnostic issues may be caused by dust or dirt

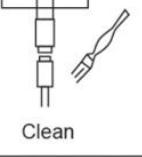
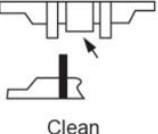
inside of the machine. So, keeping the machine clean is highly recommended.

## 9. Common Troubles and Solution

Before repair, please check the problems as below:

**NOTE:** before attempting these solutions, you must turn off power switch and unplug the machine from the power outlet.

Not working		
Check if the plug is well inserted into socket. 	Check if the power fails or fuse burn out. 	
Fail to start or stop normally		
Feeding Sensor covered in dust? Clean 	Feeding sensor not in connection with electric circuit? Check and connect 	Transmission belt of the motor not proper in tension, too tight or loose Adjust well 

Counting Error		
Hopper position adjusted improperly?  Adjust well	Counting sensor covered in dust?  Clean	Drag rubber and feeding wheel worn too much?  Change
False Alarm		
Fluorescent sensitivity adjusted improperly?  Adjust well	Verifying sensor covered in dust?  Clean	Fluorescent lighting diode aged?  Change

## 10. Maintenance

- Do not operate the unit in areas with high temperature or high humidity since it may cause the machine refuse to work or prevent it from counting accurately.
- When not use the unit for a long period of time, remove the power plug from the wall outlet.
- Never operate the unit under strong light.
- Clean the machine frequently after switching off and unplugging of the machine.

- Do not use this product in areas where it maybe exposed to water or other liquids.
- Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaner. Use a damp cloth for cleaning.

## **10. Features and Specifications**

### **Features:**

Automatic start, stop and clear  
Automatic detecting with UV(ultraviolet), MG(magnetic) and MT (metal thread) while counting  
Automatic half-note, chained-note detection  
Double-note detecting with IR (infrared) detection system  
With batch, add and self-examination function  
LCD color change to red when detect fake note  
Suitable for most currencies in the world

### **Specifications:**

Ambient Temperature: 0°C - 40°C  
Ambient Humidity: 25% - 80%  
Feeding System: Roller Friction System  
Hopper Capacity: 300pcs  
Stacker Capacity: 200pcs  
Size of Countable banknotes: MIN: 50x110mm MAX: 90x180mm  
Thickness of Countable banknotes: 0.075mm - 0.15mm  
Counting Display: 4 digits  
Batch Display: 3 digits  
Power Supply: AC220V±10% 50HZ  
Power Consumption: ≤80 Watts