SMALL NOTE COUNTER
OPERATION MANUAL
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1.0. Diagram

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2) Counting Number Display
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4) Hopper Sensor
5) Hopper
6) PVC Controlling Switch Panel
7) Function Indicators
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9) Stacker
10) Stacker Sensor
11) Banknote-catch Plate
12) Counting Sensor
13) Auxiliary Hopper Plates
14) Hopper Sensor Outlet
15) Power Switch
16) Outer Display Outlet (Optional)
17) Power Outlet
18) Fuse Outlet
19) Fastening Screw of Rear Cover
20) Up and Down Adjustable Screw of Hopper
21) Banknote-drop sensor connecting outlet
   (under the bottom plate of the hopper)
2.0. Technical Specifications

1) Ambient temperature: 0°C~40°C
2) Ambient humidity: 40%~90%
3) Banknote feeding system: Roller friction system
4) Hopper capacity: 100 sheets old notes/200 sheets new notes
5) Size scope of countable banknote: 50 x 100~100 x 180mm
6) Thickness scope of countable banknote: 0.06~0.12mm
7) Outer number display: Three digits LED
8) Counting number display: Four digits LED
9) Power: AC220V/50Hz or AC110V/60Hz (for choice)
10) Power consumption: <=60W
11) Machine size: 325 x 280 x 185mm
12) Machine weight: 7kg (16lbs)
13) Banknote counting speed: >1000 notes/min
3.0 Main Features

1) Streamline appearance
2) Batch and free count
3) Automatic start
4) Double notes detection
5) Half note detection
6) Chain notes detection

4.0 Operation

4.1 Self-checking
   Turn on the power switch. After two seconds, a 0 will appear in the batch and counting display.

4.2 Automatic start mode
   The machine starts counting automatically when the banknotes are put on the hopper and stops when the banknotes have been counted.
4.3 Counting modes

4.3.1 Batch mode
The machine is preset to batch at 10, 20, 25, 50 or 100 notes.
Press the BATCH key to display these settings. Use the + and - keys to obtain
other batch settings. When the notes are placed in the hopper, the machine
will count to the batch setting you have chosen and stop. Remove the notes
from the stacker and the machine will resume counting and batching.

4.3.2 Free count mode
The machine counts all the banknotes in the hopper

4.3.3 Add mode
When the ADD key is pressed, the machine will total all banknotes that have
been counted, whether in batch mode or free count mode.

4.3.4 Width detection function
Not for U.S. Currency
4.3.5 Counterfeit detection

4.3.5.1 Ultraviolet (UV) To select this function, press the UV key. The fluorescent detection sensitivity is available in three levels: low, medium, and high; which are indicated on the display by L, M, H respectively.

A suspected counterfeit note that generates fluorescence under the ultraviolet ray will be detected. The machine will beep and stop; and the display will show the error message CF1.

Remove the suspected note from the stacker, and determine whether the note is counterfeit. If it is not, press the START key to continue counting. If the note is counterfeit, remove all the notes from the stacker, press the START key to clear the error message and recount all the notes except the counterfeit one.

(Note: Do not use in direct sunlight as it could affect the operation of the UV.)

4.3.5.2 Magnetic (MG)

To select this function, press the MG key. The machine will detect a suspected counterfeit note without magnetic ink. The machine will beep and stop; and the display will show the error message CF2. Remove the suspected note from the stacker, and determine whether the note is counterfeit. If it is not, press the START key to continue counting. If the note is counterfeit, remove all the notes from the stacker, press the START key to clear the error message and recount all the notes except the counterfeit one.
4.3.6 Outer Display (Optional)

4.3.7 Placement of Banknotes in the Hopper
Position the notes in the hopper at a forward angle, then tilt back gently.
Refer to the following diagrams.
### 5.0 Error Codes

When an error occurs, the machine will beep and stop; and show an error code on the display. The chart below indicates the error codes and their corresponding meanings, causes and remedies.

<table>
<thead>
<tr>
<th>Error</th>
<th>Meaning</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ed</td>
<td>Double</td>
<td>More than two notes are detected or a note that is too densely printed compared with a standard note.</td>
<td>Remove all banknotes in the stacker, press the START key to clear the error message. Recount all the notes.</td>
</tr>
<tr>
<td>Ec</td>
<td>Chain</td>
<td>More than two banknotes fed in chain.</td>
<td></td>
</tr>
<tr>
<td>Eh</td>
<td>Half Banknote passed</td>
<td>Half-broken banknote passed.</td>
<td>Remove the broken banknote, and recount all the banknotes.</td>
</tr>
<tr>
<td></td>
<td>Note passing through one counting sensor only.</td>
<td></td>
<td>Make sure to put the banknote in the center of the hopper.</td>
</tr>
<tr>
<td>Dd</td>
<td>Short in width</td>
<td>Abnormal banknotes are mixed.</td>
<td>Verify the last two counted banknotes and take away the smaller banknotes. Press the START key to clear the error message and recount all the banknotes.</td>
</tr>
<tr>
<td>Cfl</td>
<td>CF Banknotes</td>
<td>Abnormal banknotes are mixed.</td>
<td>Take away the counterfeit Banknotes. Press the START Key to clear the error message and recount all the banknotes.</td>
</tr>
<tr>
<td>Cf2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.2 When in the counterfeit detection mode, malfunctions may occur. The chart below indicates the problems and their corresponding causes and remedies.

<table>
<thead>
<tr>
<th>Malfunction</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>With UV selected, the machine identifies a real note as counterfeit.</td>
<td>The UV sensitivity level is too high</td>
<td>Lower the UV sensitivity level.</td>
</tr>
<tr>
<td></td>
<td>Damaged or defaced note.</td>
<td>Remove notes.</td>
</tr>
<tr>
<td>With UV selected, the machine does not detect a counterfeit note.</td>
<td>The UV sensitivity is too low</td>
<td>Increase the UV sensitivity level.</td>
</tr>
<tr>
<td></td>
<td>The UV tube is worn out or not lit.</td>
<td>Replace with a new UV bulb.</td>
</tr>
<tr>
<td>With MG selected, counterfeit notes are not detected.</td>
<td>MG sensor is dusty.</td>
<td>Clean sensor with cotton and alcohol.</td>
</tr>
</tbody>
</table>
5.1 Additional Error Codes

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>The left counting sensor is dusty or defective.</td>
<td>Clean sensor or replace sensor.</td>
</tr>
<tr>
<td>E2</td>
<td>The right counting sensor is dusty or defective.</td>
<td>Clean sensor or replace sensor.</td>
</tr>
<tr>
<td>E5</td>
<td>The hopper plate sensor is dusty or defective.</td>
<td>Clean or replace sensor.</td>
</tr>
<tr>
<td>E6</td>
<td>The batch preset sensor is dusty, works intermittently, or defective.</td>
<td>Clean or replace sensor.</td>
</tr>
</tbody>
</table>

6.0 Maintenance

Keep your currency counter as dust free as possible. Periodically, clean your machine with compressed air to remove dust and other particles. Do not allow paper clips, rubber bands, and other stray items to fall into the machine. The voltage should be limited to the prescribed range. The amperage of fuse is 1 A for 220V, 2A for 110V. Do not exceed.

7.0 Accessories

Operation manual, power cord, brush, rubber feed wheels, drive belt, resistance rubber tongue.