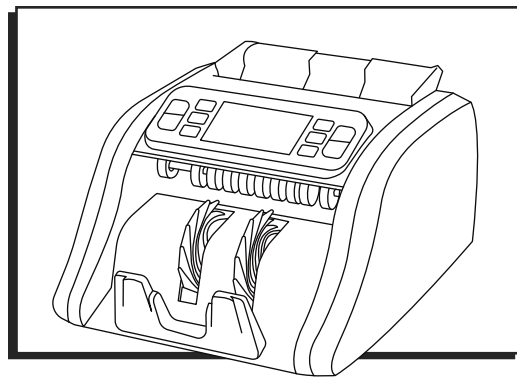


ULINE H-12857

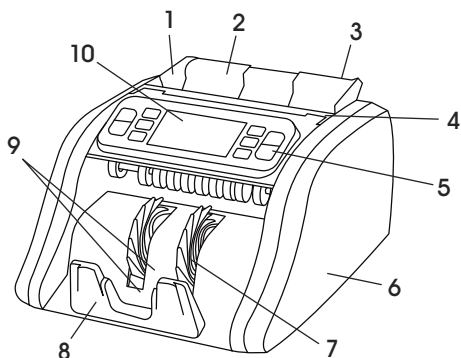
MIXED BILL COUNTER

1-800-295-5510
uline.com



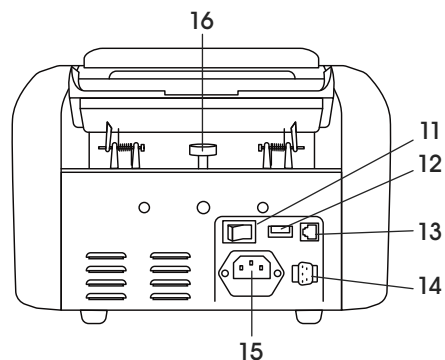
PARTS

FRONT VIEW



#	DESCRIPTION
1	Bill Guides
2	Hopper Sensor
3	Hopper
4	Handle
5	Panel
6	Side Cover
7	Impeller
8	Stacker
9	Stacker Sensor
10	Display

BACK VIEW



#	DESCRIPTION
11	Power Switch
12	USB Port
13	External Display Port
14	Printer Port
15	Power Socket
16	Hopper Plate Adjustment Screw

SAFETY



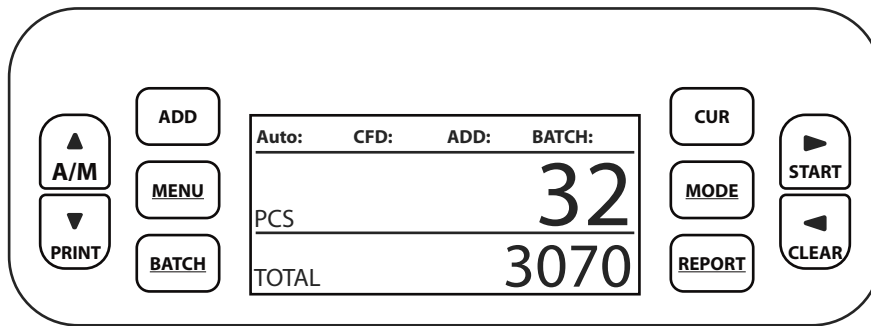
IMPORTANT! When using this machine, basic safety precautions should always be taken, including the following:

- Do not use counter in areas where it may be exposed to water or any other liquids.
- Only use the power cord supplied with the machine. Plug the power cord into a properly grounded wall outlet. Do not remove the ground pin from the power cord. Failure to properly ground the machine can result in severe injury or fire.
- Ensure the counter is installed on a stable, flat surface. Do not operate the machine in areas with high temperature, humidity or smoke. This may prevent the counter from working correctly.
- Counter is designed for indoor use in a ventilated environment. Keep away from direct sunlight and strong magnetic fields, as this could interfere with operation.
- If the counter is not in use for an extended period, disconnect the power cord from the wall outlet.

SAFETY CONTINUED

- Unplug machine from the wall outlet before cleaning. Use compressed air and a currency cleaning card for cleaning the interior of the machine. A soft cleaning cloth may be used to clean the exterior. Avoid the use of solvents, as they could damage the machine.
- To avoid the risk of electrical shock, do not disassemble the machine. Disassembling will expose you to dangerous voltages and other risks associated with moving components. Incorrect re-assembly can cause electrical shock when the unit is powered on.
- Call Uline Customer Service at 1-800-295-5510 when service or repair is needed.

CONTROLS



BUTTON	PRIMARY FUNCTION	SECONDARY FUNCTION
A/M / ▲	A/M Choose auto or manual start.	▲ When in batch mode, increase batch number.
PRINT / ▼	PRINT When in report mode and connected to a printer, print out report detail.	▼ When in batch mode, decrease batch number.
ADD	Switch adding function on/off.	-----
MENU	Enter menu when in main interface. Password is 9999.	When in menu screens, button functions as "select."
BATCH	Switch batch mode on/off.	-----
CUR	Show the available currencies.	-----
MODE	Choose between sorting, counting or mix modes.	-----
REPORT	Check detailed count information.	-----
START / ►	START Start counting.	► When in menu, save selected setting.
CLEAR / ◀	Clear Clear the input.	◀ Return to previous interface.

SETUP

Connect 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 screen will display 0 when the machine is ready.

LOADING THE HOPPER



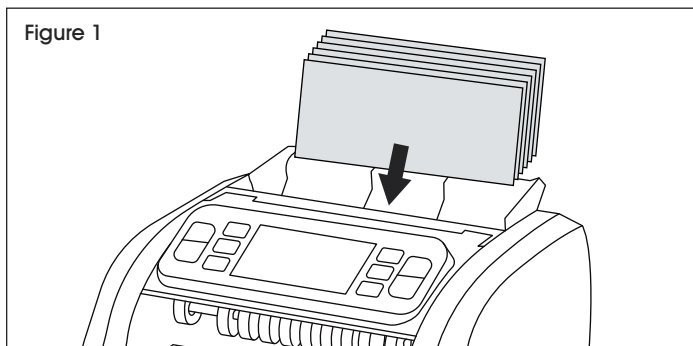
IMPORTANT! Ensure there are no metal clips, paper bands or rubber bands in the bills to be counted



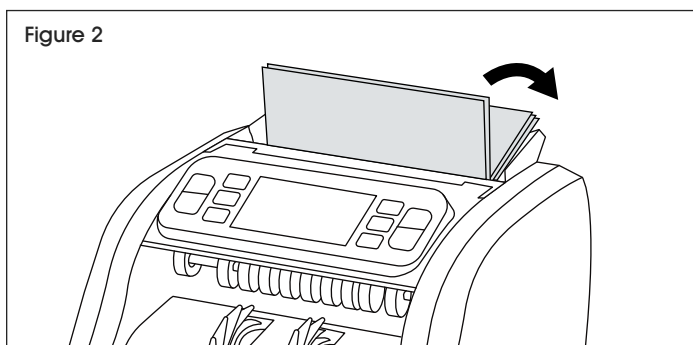
IMPORTANT! To reduce rejects:

- Arrange bills evenly before loading.
- Avoid counting bills that are wet, excessively dirty, damaged, folded or curled.
- Ensure no foreign objects are present within the bills (coins, paper clips, rubber bands, etc.)

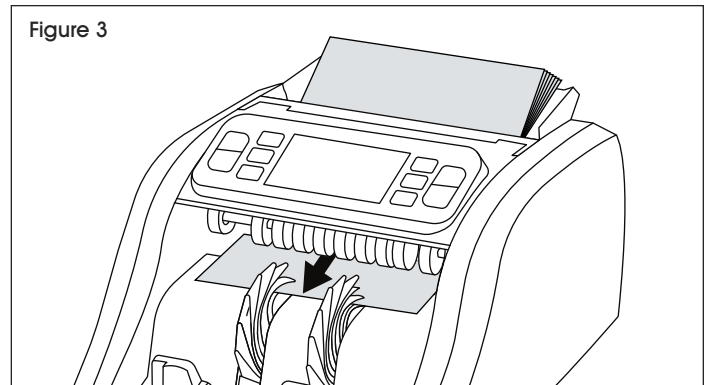
1. Position stack of bills perpendicular to hopper. (See Figure 1)



2. Flip front edge of stack upward toward rear of machine. (See Figure 2)



3. Verify bills feed properly into machine. (See Figure 3)

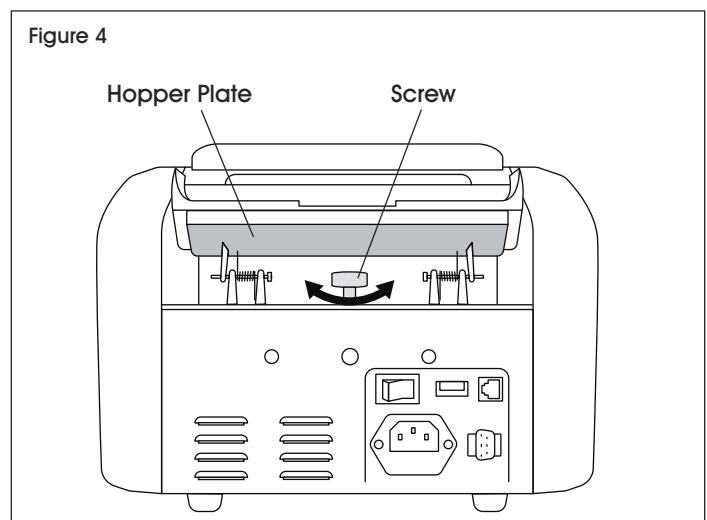


HOPPER PLATE ADJUSTMENT

When bill feeding is not smooth or banknote counting is inaccurate, adjust the vertical adjusting screw and the gap between the resistance rubber and rubber wheel. After adjusting, insert a banknote and hold it. If you feel a pull, the machine is functioning properly.

To increase friction: Turn the screw clockwise to decrease the gap. (See Figure 4)

To reduce friction: Turn the screw counterclockwise to increase the gap. (See Figure 4)

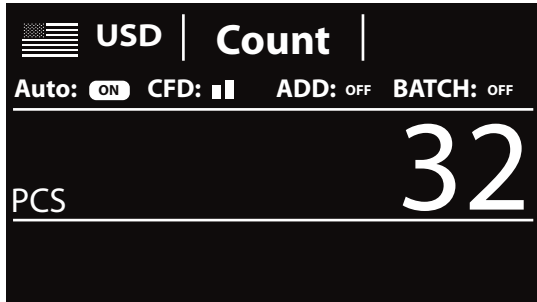


COUNTING MODE

This mode only counts the number of bills and does not read the currency. It operates with the double note detection only. All other counterfeit detections are disabled in this mode.

Press **MODE** button to select counting mode. "Count" will be displayed on the screen. (See Figure 5)

Figure 5



SORTING MODE

This mode is used to count banknotes of the same denomination of the selected currency, using the first banknote counted as a reference. The machine will stop counting when a denomination change occurs.

It will also save the information of the counted banknotes simultaneously, including the total amount and the total number of banknotes in the stacker. This information is shown on the unit's display.

Press **MODE** button to select sorting mode. "Sort" will be displayed on the screen. (See Figure 6)

Figure 6



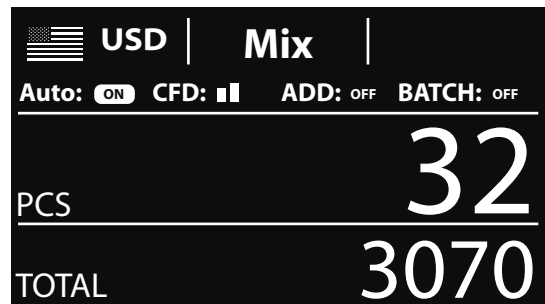
MIXED MODE

This mode is used to count banknotes of all denominations of the selected currency.

It will also save information about the counted banknotes, including the total amount and the total number of banknotes in the stacker. This information is shown on the unit's display.

Press **MODE** button to select mixed mode. "Mix" will be displayed on the screen. (See Figure 7)

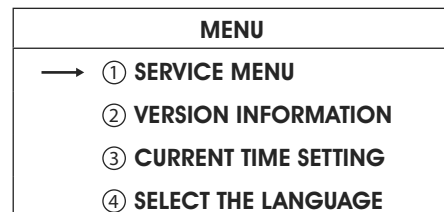
Figure 7



SETTINGS MENU

ENTERING THE MENU

1. Press the **MENU** button once to see the following menu.
2. Use the ▲ and ▼ buttons to select the desired sub-menu. Press **MENU** or **START** to confirm and **CLEAR** to quit. (See Figure 5)



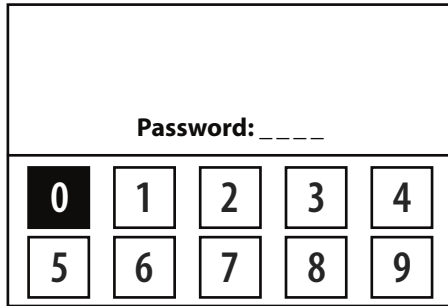
OPERATION CONTINUED

SERVICE MENU

To enter the service menu, you will be prompted to enter a password. (See Figure 8)

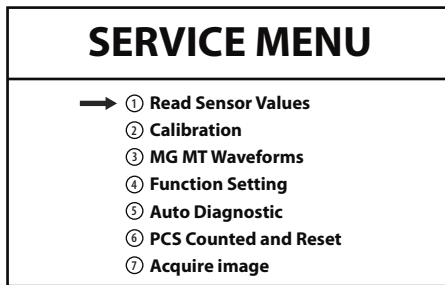
 **NOTE:** The default password is 9999.

Figure 8



Service menu is displayed below. (See Figure 9)

Figure 9



READ SENSOR VALUES

The displayed interface shows whether any sensor has a malfunction. (See Figure 10)

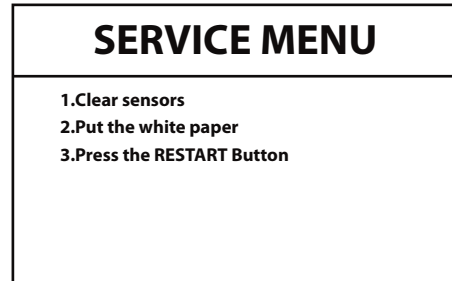
Figure 10

1: PS1L VALUE	0.107V
2: PSIR VALUE	0.110V
3: STACKER VALUE	0.099V
4: HOPPER H VALUE	0.113V
5: HOPPER L VALUE	0.091V
6: UV R VALUE	0.51V
7: UV L VALUE	

CALIBRATION

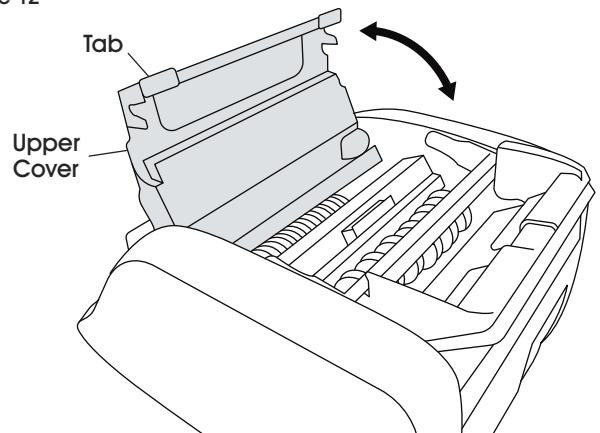
The displayed interface shows the process of color balancing for IR sensors. (See Figure 11)

Figure 11



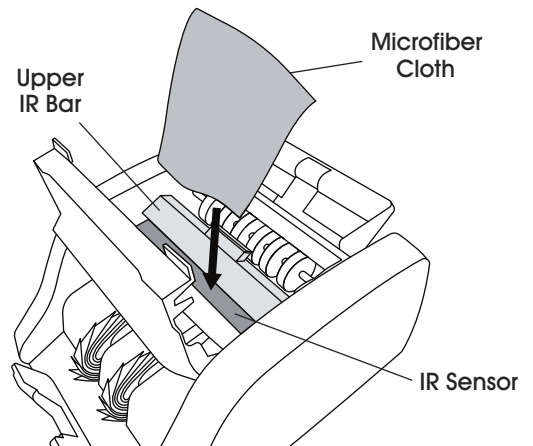
1. Lift tabs to open the upper cover. (See Figure 12)

Figure 12



2. Lift upper IR bar. Clean the IR sensor with a microfiber cloth. (See Figure 13)

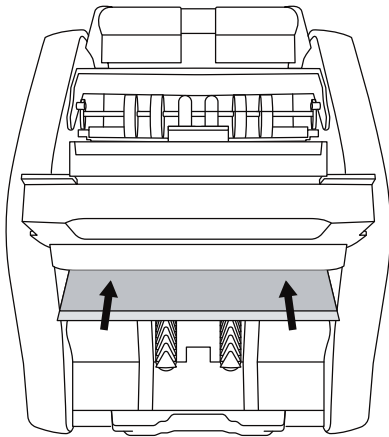
Figure 13



OPERATION CONTINUED

- Place white calibration paper between the two sensor bars. Close IR bar. (See Figure 14)

Figure 14



- Press **START** to initiate calibration.
 - If the message "adjust start" appears on the screen and "Adjust succeed 1" displays, calibration is complete. Power off the machine, then turn it back on to resume normal operation.
 - If a different message appears on the screen, check the position of the calibration card. Ensure it is properly inserted and covers both IR sensors, then press the **START** button again.
 - When calibration is complete, restart the machine.

MG MT WAVEFORMS

The displayed interface is to be used only for servicing. (See Figure 15)

Figure 15

MG	
_____	255
_____	127
_____	100

FUNCTION SETTING

The displayed interface shows unit functions that can be set as desired. (See Figure 16)

Figure 16

SERVICE MENU	
→ Key Beep	<input checked="" type="radio"/> ON
Warning beep	<input checked="" type="radio"/> ON
Batch no clear	<input checked="" type="radio"/> OFF
Printer baud rate	9600
Paper width	58mm
Cut paper CMD	0
Cut paper after print	<input checked="" type="radio"/> OFF

SERVICE MENU	
→ Print reject detail	<input checked="" type="radio"/> OFF
Voice switch	<input checked="" type="radio"/> OFF
Maximum 99 pce	<input checked="" type="radio"/> OFF

AUTO DIAGNOSTIC

The displayed interface is to be used for production and professional servicing. (See Figure 17)

Figure 17

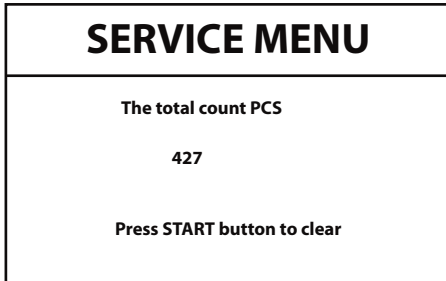
SERVICE MENU	
Press RESTART KEY to start	
Remaining Minutes	240
Error CNT	0

OPERATION CONTINUED

PCS COUNTED AND RESET

No function. (See Figure 18)

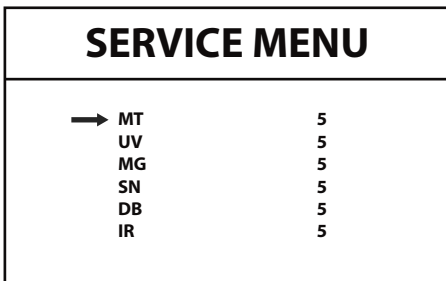
Figure 18



DETECTION LEVEL

The displayed interface shows sensitivity levels of each counterfeit detection method. (See Figure 19)

Figure 19



1. Use ▲ and ▼ buttons to select a detection method and press **MENU** to confirm the selection.
2. Press ▲ and ▼ buttons to change the sensitivity levels.

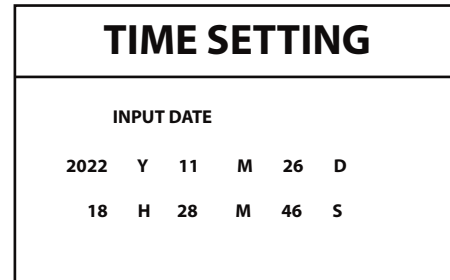
VERSION INFORMATION

Displays technical information of the unit.

CURRENT TIME SETTING

Displays current date and time of the unit. (See Figure 20)

Figure 20



1. To change date or time, press the **MENU** button to select or scroll between year, month, day, etc.
2. Adjust date and time using ▲ and ▼ buttons.

SELECT THE LANGUAGE

Displays language options of the unit.

DETECTION FEATURES

COUNTERFEIT NOTE DETECTION



NOTE: Counterfeit detection is not active in counting mode. Counterfeit detection is always active when unit is in mixed or sorting modes.

Magnetic Thread Detection (MG): Machine looks for the magnetic thread in the printing of US currency.

Ultraviolet Detection (UV): Machine checks for certain fiber colors in the bills.

Advanced Infrared (IR): Machine shows the different contrasts in bills.

HALF NOTE DETECTION

Machine detects when a half note passes through the counting mechanism.

CHAIN NOTE DETECTION

Machine detects when multiple notes pass through the counting mechanism at the same time.

DOUBLE NOTE DETECTION

Machine detects when two bills stick together.

MAINTENANCE



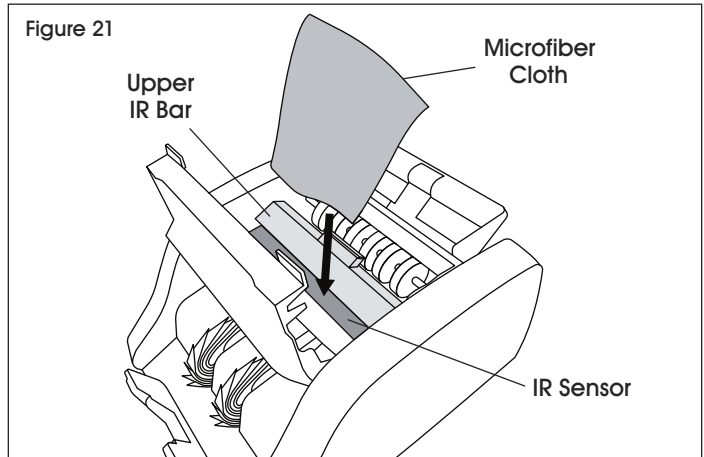
CAUTION! Always turn machine off and disconnect the power cord before cleaning.

DAILY

- Clean all the sensors in the machine with a microfiber cloth, compressed air or soft brush to remove dust and other particles. (See Figure 21)
- Run a currency cleaning card (not included) through the machine several times to clean the feed mechanism.



NOTE: When not using the machine for an extended period, cover it with a drop cloth or plastic sheeting to prevent dust from settling inside.



TECHNICAL INFORMATION

SPECIFICATIONS

Power Supply	110 V +/- 10%, 60 Hz
Power Consumption	< 80 Watts
Counting Speed	1,000 bills/minute
Applicable Bill Thickness	0.075-0.15 mm
Hopper Capacity	200-300 Bills
Stacker Capacity	200-300 Bills
Batch Range	1-999 Bills
Feeding System	Roller Friction System
Display Size	3.5"
Counterfeit Detection	Ultraviolet and Magnetic
Ambient Operating Temperature	32-95°F
Operating Temperature	14-140°F
Operating Humidity	20-90%
Connection Port	USB, RS-232, RJ11
Size	12.2" x 10.4" x 6.9"
Weight	Net: 12.1 lbs. Gross: 14.3 lbs.

TROUBLESHOOTING

OPERATING ISSUE	CAUSES	RECOMMENDATIONS
Bills jammed.	Jam inside machine.	<ol style="list-style-type: none"> 1. Turn off the machine. 2. Remove jammed bills by lifting the front cover and turning rollers or wheels manually if necessary. 3. Look for foreign objects inside the machine (paper clips, rubber bands, etc.). Remove objects. 4. Close front cover and turn machine on and restart counting.
Machine fails to detect counterfeit notes.	<p>UV sensor may have collected dust.</p> <p>Magnetic sensors may need cleaning.</p>	<p>Clean the UV sensor using compressed air or a soft brush.</p> <p>Run a currency cleaning card (not included) through the machine to clean the magnetic sensors.</p>
Inaccurate counting; recurrent "Chn" or "dbl" errors.	<p>If bills are brand new, feeding gap may be too wide.</p> <p>Rubber rollers and rubber may may have worn down, increasing the feed gap.</p>	<p>Narrow feed gap.</p> <ol style="list-style-type: none"> 1. Turn feed gap adjustment screws counterclockwise and retry counting. 2. Repeat procedure until gap is properly adjusted.

ERROR CODES

ERROR CODE	CAUSES	RECOMMENDATIONS
<i>E1</i>	UV sensor error.	Remove bills and clean the UV sensor.
<i>E2</i>	Double note error.	If errors occur frequently, adjust the screw clockwise to decrease the feed gap.
<i>E3</i>	Chain note error.	
<i>E4</i>	Slanted note error.	Adjust the bill guides equally from both the left and right sides.
<i>E8</i>	Recognition timeout.	Remove the bills and count again.
<i>E11</i>	Incorrect denomination.	The unit is in sorting mode and has detected multiple banknote denominations. Remove the top bill from the stacker.
<i>E12</i>	Image error.	Remove the top bill from the stacker. Clean the IR sensor or perform the calibration.
<i>E13</i>	Orientation recognition error.	
<i>E20</i>	Metal thread error.	Remove the top bill from the stacker. Clean the MG sensors.
<i>E21</i>	Magnetic error.	

