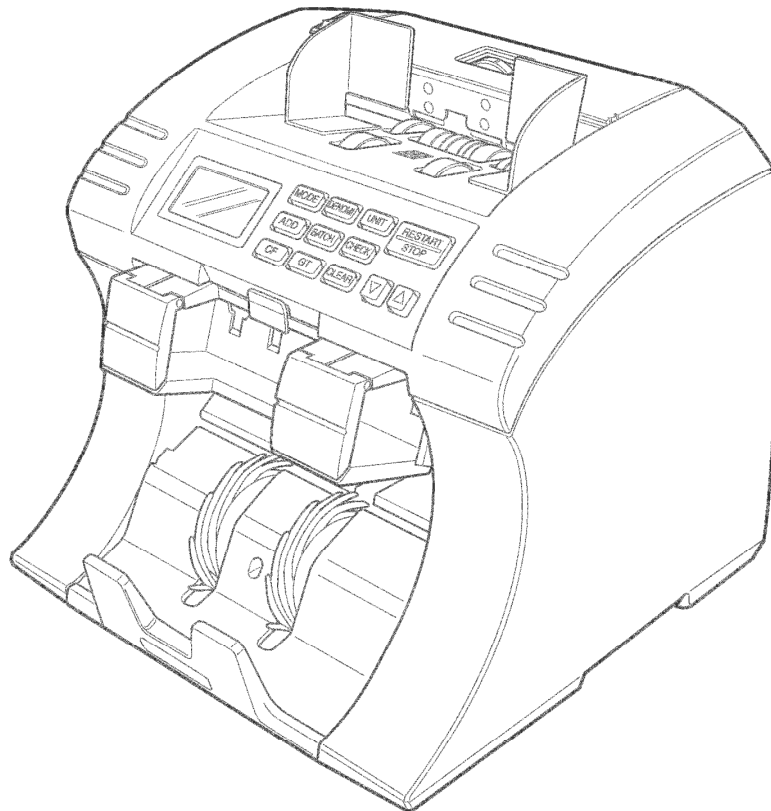




CURRENCY DISCRIMINATION COUNTER

MODEL ***D-551*** for USA

User's Manual



BILLCON CORPORATION
(T82-0049-060414)

SAFETY INSTRUCTIONS

Safety Measures You Should Know Prior to Use

- Please use this product in an environment that has been described in the specification section of this manual. Fire or electric shock can result if it is used in an environment other than one described in the specification section.
- Please do not make improvements to the product, or modify the parts and then install them on the product. In addition, please do not open a part of the product where there are no specific instructions for opening it, and do not remove a part or cover that has been screwed closed. Fire, electric shock or injury can result.
- When smoke, an unusual smell or sound is emitted from the product, immediately suspend use and turn off the power switch. Then, remove the electric plug from the outlet, and contact the closest service center. Fire can result from continued utilization in this condition without repair.
- Please do not place a vase or cup filled with water on top of the product. Fire or electric shock can result if the water spills and gets inside the product and damages the insulation.
- Please do not allow metal objects like paper clips or staples to fall through the open cracks in the product. Fire or electric shock can result if a metal object gets in and comes in contact with the electric circuits inside the product.
- Please contact the nearest service center for repairing the product. Fire, electric shock or injury can result if repairs are poorly done.
- Please use the electrical current specified in the manual. Fire, electric shock or injury can result if electricity is used from a source other than one that is specified.
- Please do not use an extension cord or plug multiple devices into the same outlet. Please use a single outlet exclusively for this product. Fire can result.
- Please inspect the electric plug and electric cord periodically. Suspend use if the plug or cord is damaged, and contact the nearest service center to have the plug or cord replaced. Fire or electric shock can result.
- Please do not place a heavy object on the electric cord, place it near a source of heat, bend it or insert it into the outlet while it is coiled up. Damage to the cord could cause fire or electric shock.
- Please do not pull on the cord when removing the plug from the outlet. Fire or electric shock can result from a damaged, electric cord, plug or outlet.
- You must turn off the power switch and remove the plug from the electric outlet before cleaning the product. Electric shock can result.
- For safety reasons, please remove the plug from the electric outlet when the product is not used for a long period of time. Overheating and fire can result from accumulated dust.
- Please do not place flammable objects near or in the product. An explosion or fire could result from heat emitted by the product or a spark from the source of electricity.

- After the product has been doused with water, such as when putting out a fire, please do not use it. Take it to the nearest service center for repairs and request an inspection. Fire or electric shock can result if it is used without it being checked.
- Please do not obstruct air circulation around the product. Fire can be caused by a build up of heat within the product when air circulation is obstructed.
- When installing and using the product, please allow adequate space to open and close the door and cover as well as to operate the product. Coming in contact with parts of the mechanism could cause injury.
- The three-hole plug which can be grounded to the building ground should be used for power supply.
- No socket should be multi-wired.
- Unplug the machine before it is moved.
- Tools, fingers, hairs, clothing, and other loose objects should not be placed near the hopper.
- Covers should not be opened during machine operation. The machine may operate when the hopper is opened.

To Increase Product Life

In order to ensure a longer product life, please avoid installing it in a location like that described below. In addition, the following can cause the equipment to deteriorate, get damaged or function poorly.

- Please do not install in a location that is exposed to direct sunlight.
- Please avoid installing in a location near a heater where a part of the equipment will increase in temperature or expose it to the draft from an air conditioner.
- Please avoid installing in a location which is congested or there is foot traffic.
- When the product is placed in a cold location and it is suddenly heated, condensation will develop inside the equipment.
- Please place the product in an environment with the following conditions:
Temperature 5 to 40° C Humidity 30 to 70% RH (without a humidifier)
- Please do not place heavy objects on the product or allow rough handling.
- Please do not use undue force when opening and closing the door or cover and in handling the various parts of the product.

WARNING

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used according to the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at his own expense.

CONTENTS

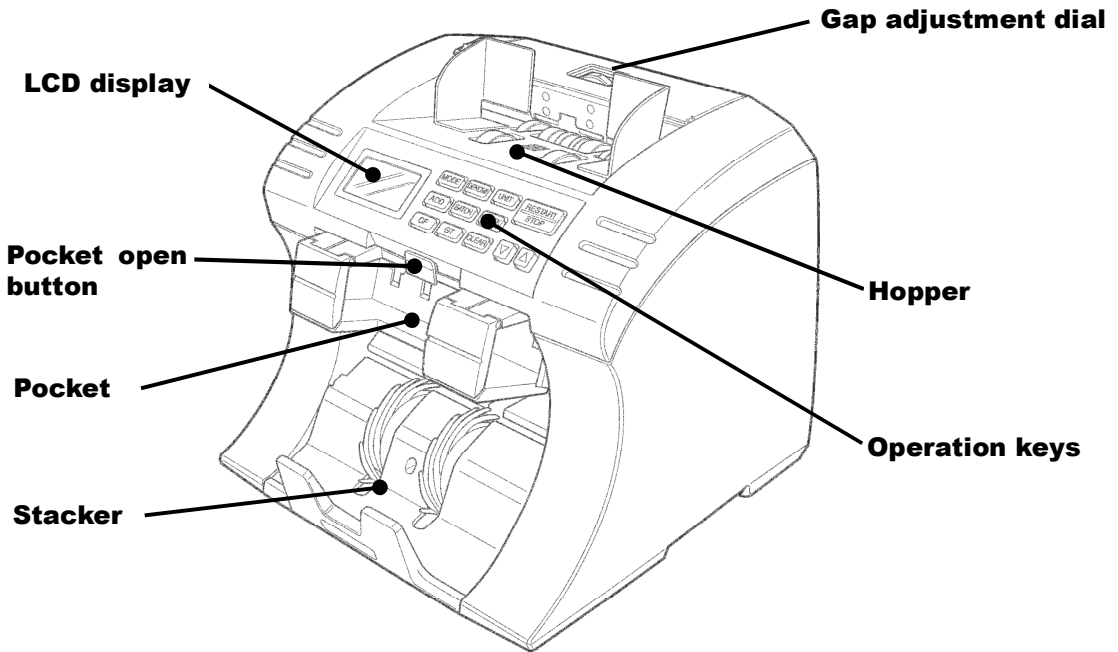
MACHINE OVERVIEW	1
■ APPEARANCE AND NAMES OF MAJOR PARTS	1
■ OVERVIEW OF THE LCD DISPLAY	2
OPERATION.....	3
■ FREE MODE.....	3
■ MIXED MODE.....	4
■ SINGLE MODE	5
■ SEPARATION (SEPA) MODE	6
■ DIRECTION MODE.....	7
■ SIDI (Single-Direction) MODE.....	8
EXPLANATION OF OPERATION KEYS.....	9
■ 1. MODE KEY.....	9
■ 2. ADD KEY.....	9
■ 3. CF KEY.....	10
■ 4. DENOMI KEY AND GT KEY.....	10
■ 5. BATCH KEY.....	11
■ 6. UNIT KEY.....	12
■ 7. RESTART/STOP KEY AND CLEAR KEY.....	12
■ 8. FUNC KEY.....	12
SET UP MODE.....	13
■ HOW TO ENTER THE SET UP MODE.....	13
TRANSPARENCY LEVEL SETTING (DBL LVL).....	14
COUNTING SPEED SETTING (SPEED)	15
BATCH COUNT SETTING (BATCH)	16
AUTO START SETTING (AUTO START)	17
SERIAL PORT 1AND 2 SETTING (SIO #1&SIO #2)	18
MG DETECTION FUNCTION SETTING (MG MODE)	20
OPERATION MODE SETTING (COUNT MODE)	21
Detect New/Old Bill Setting (DETECT)	22
Reject Unspecified Bill Setting (DESTINATION)	23
Face and Back specification Setting (FACE/BACK).....	24
Orientation specification Setting (ORIENT).....	25
BATCH START Setting (BATCH START).....	26
GT MEM Setting (GT MEM).....	27

HOW TO SET BILLS ON THE HOPPER	28
HOW TO REMOVE JAMMED BILLS	29
HANDLING OF JAMMED BILLS.....	29
DAILY CLEANING OF THE MACHINE	31
Cleaning the Detection Sensor.....	31
Cleaning the Hopper Sensor	31
Cleaning the Stacker Sensor	31
ERROR	32
■ ERROR CODE AND MESSAGE.....	32
SPECIFICATIONS	33

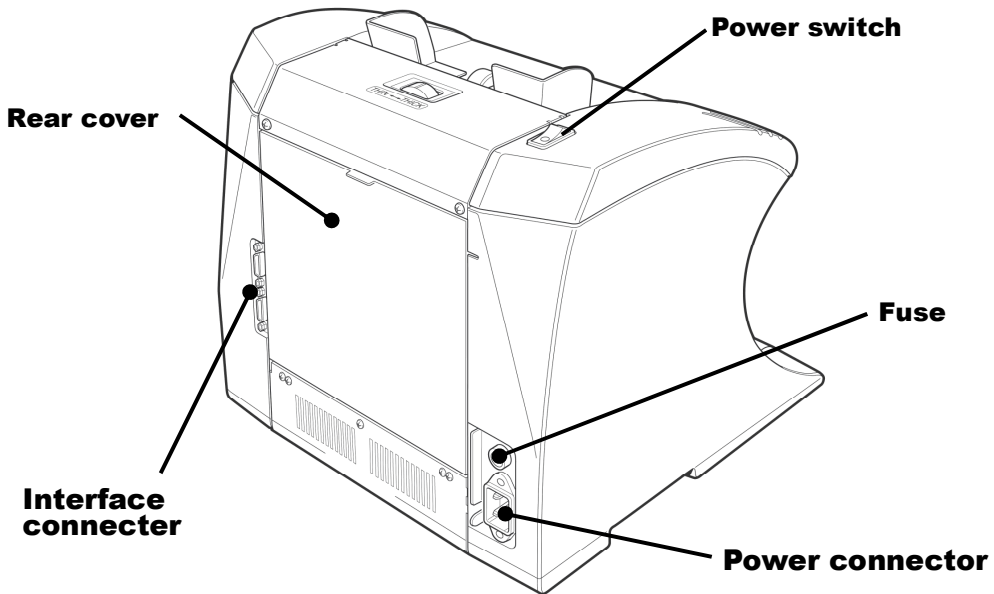
MACHINE OVERVIEW

APPEARANCE AND NAMES OF MAJOR PARTS

FRONT VIEW

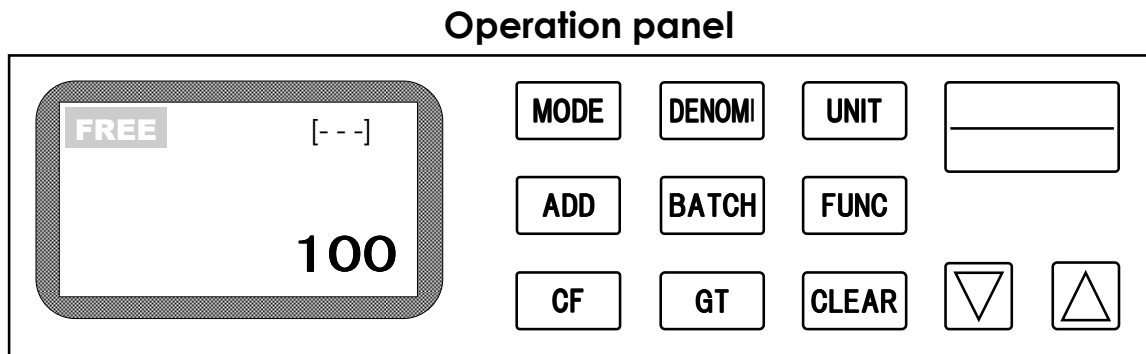


BACK VIEW



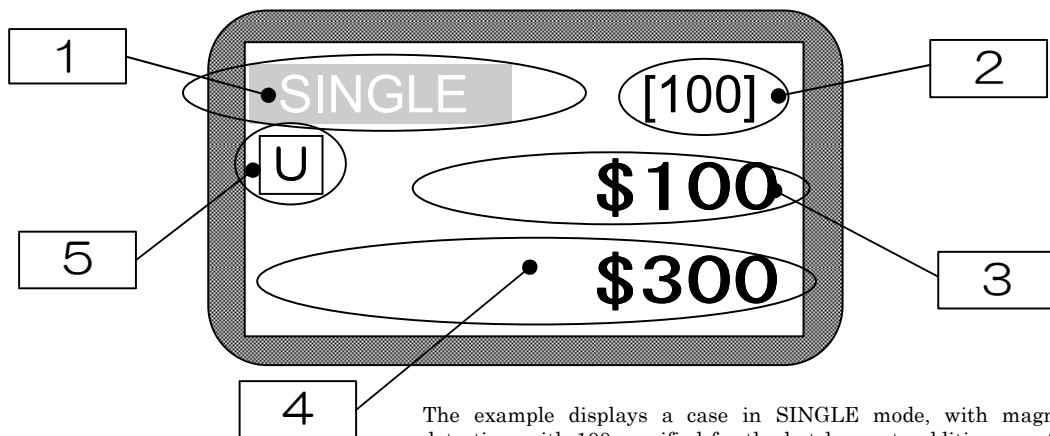
OVERVIEW OF THE LCD DISPLAY

In this section we will explain the LCD display on the operation panel. See the operation keys section for an explanation of the operation keys.



EXPLANATION OF LCD DISPLAY

Display during operation



Display Explanation

- 1:** Displays the operation mode. (The display is in light text on a dark background.)
- 2:** Displays the batch number.
- 3:** Displays the number of bills (or amount) counted.
- 4:** The cumulative number of bills (or amount) counted when using addition is displayed. Up to 9 digits can be displayed.
- 5:** This is displayed when the magnetic detection function is enabled.

OPERATION

INTRODUCTION

Necessary operation is selectable out of 6 modes. Explanation of each mode is mentioned through this operation manual. (Detailed operation settings are explained under **SET UP** mode.)

FREE MODE

When the power switch is turned on, the **FREE** mode is enabled. The **FREE** mode is used when counting the number of bills or papers other than bills that do not require discrimination while counting.

1. Shown below on the LCD display, the **FREE** mode is displayed.



2. If **AUTO START** is set, when bills are placed in the hopper, counting starts automatically. If **AUTO START** is not set, press the **RESTART/STOP** key.
3. When the hopper runs out of bills, counting stops automatically. The number of bills counted is displayed.



Other Operation Keys Useable With the FREE Mode
(1) BATCH (2) ADD (3) CF (4) GT

MIXED MODE

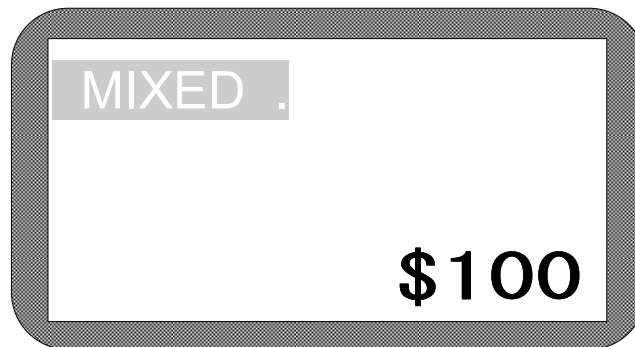
The **MIXED** mode counts all bills and provides a total piece and value count, including an itemized inventory by denomination. **MIXED** mode is most often used to get a quick and accurate total value as well as to verify a total value.

1. Press the **MODE** key to select the **MIXED** mode. The LCD display will switch.



Note: The amount counted is automatically displayed. You can display number of bills counted by pressing the **UNIT key.**

2. If **AUTO START** is set, when bills are placed in the hopper, operation starts automatically. If **AUTO START** is not set, press the **RESTART/STOP** key.
3. When the hopper runs out of bills, operation stops automatically. The amount counted is displayed.



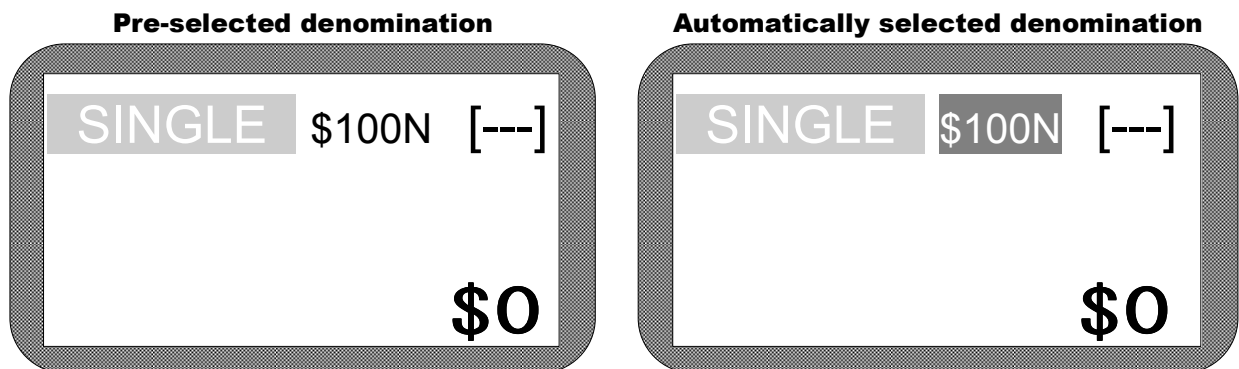
Note: The MIXED mode discriminates bill denominations. Bills for which the denomination could not be determined are fed to the pocket, and bills for which the denomination could be discriminated are fed to the stacker.

Other Operation Keys Useable With the MIXED Mode
(1) ADD (2) CF (3) DENOMI (4) GT (5) UNIT

■ SINGLE MODE

The **SINGLE** mode counts bills of a single denomination. You can select the desired denomination or the D-551 can automatically set itself by scanning the first in the stack. All bills of different denominations are fed to the pocket.

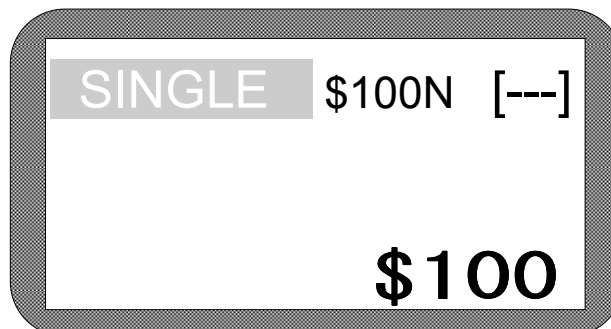
1. Press the **MODE** key to select the **SINGLE** mode. The LCD display will switch.



Note: The amount counted is automatically displayed. You can display number of bills counted by pressing the **UNIT** key.

2. If **AUTO START** is set, when bills are placed in the hopper, operation starts automatically. If **AUTO START** is not set, press the **RESTART/STOP** key. Bills other than the specified denominations during operation are fed to the pocket.

3. When the hopper runs out of bills, operation stops automatically. The amount counted is displayed.



Note 1: The **SINGLE** mode discriminates bill denominations. Bills of the specified denomination are fed to the stacker, and bills for which the denomination could not be determined and bills other than the specified denomination are fed to the pocket.

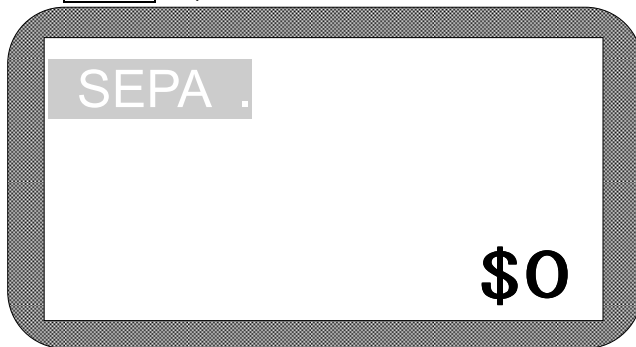
Note 2: If a specified denomination is selected by **DENOMI** key, a bill of the specified denomination will be fed to the stacker while other denominations are fed to the pocket.

Other Operation Keys Useable With the SINGLE Mode
(1) BATCH (2) ADD (3) CF (4) DENOMI (5) GT (6) UNIT

SEPARATION (SEPA) MODE

The **SEPA** mode is used when separating denominations. In this mode the denomination of the first bill is identified and bills of the same value are counted until a different denomination is detected, whereupon the D-551 stops. When the bills are removed from the stacker the D-551 counts the new denomination until a different denomination is detected and the D-551 stops again. When restarted, the newest denomination is counted and so on...

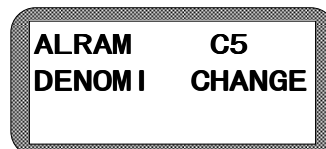
1. Press the **MODE** key to select the **SEPA** mode. The LCD display will switch.



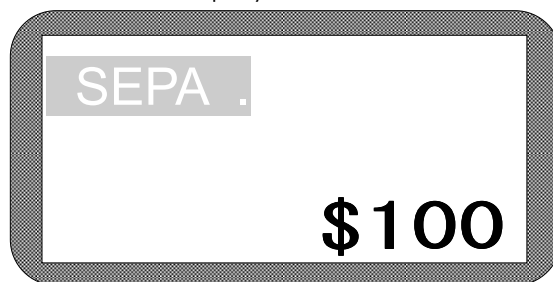
Note: The amount counted is automatically displayed. You can display number of bills counted by pressing the **UNIT key.**

2. If **AUTO START** is set, when bills are placed in the hopper, counting starts automatically. If **AUTO START** is not set, press the **RESTART/STOP** key.

Counted bills are fed to the stacker. If the denomination is switched during counting, operation will be suspended, the LCD display switches to the screen shown below. When bills are removed from the stacker, counting restarts automatically.



3. When the hopper runs out of bills, counting stops automatically, ending the counting process. The amount of bills counted is displayed.



Note: The SEPA mode discriminates bill denominations. Bills for which the denomination could not be determined are fed to the pocket.

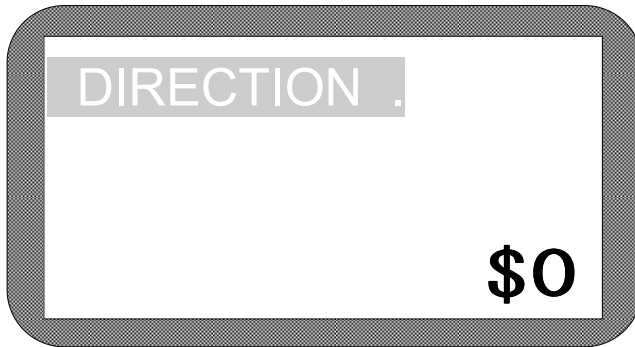
Other Operation Keys Useable With the SEPA Mode

(1) ADD (2) CF (3) DENOMI (4) GT (5) UNIT

■ DIRECTION MODE

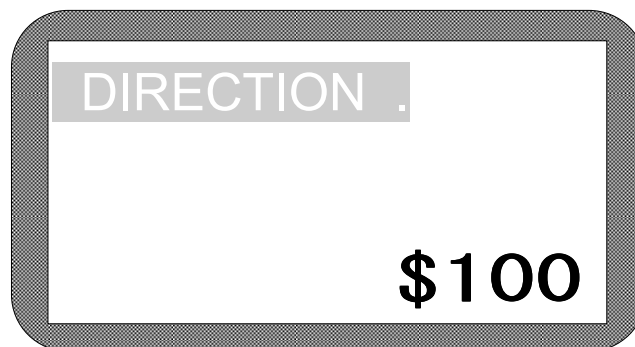
The **DIRECTION** mode sorts counted all bills by orientation (Face and Back). Display shows amount or unit of specified direction bills. You can select the desired direction or the D-551 can automatically set itself by scanning the first in the stack. If a direction is selected by specification setting in set up mode.

1. Press the **MODE** key to select the **DIRECTION** mode. The LCD display will switch.



Note: The amount counted is automatically displayed. You can display number of bills counted by pressing the **UNIT key.**

2. If **AUTO START** is set, when bills are placed in the hopper, operation starts automatically. If **AUTO START** is not set, press the **RESTART/STOP** key.
3. When the hopper runs out of bills, operation stops automatically. The amount counted is displayed.



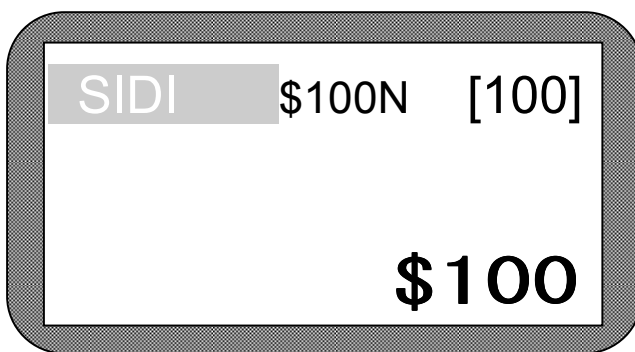
Note: The DIRECTION mode discriminates bill denominations and directions. Bills for which the denomination and the direction could not be determined are fed to the pocket.

Other Operation Keys Useable With the DIRECTION Mode
(1) ADD (2) CF (3) DENOMI (4) GT (5) UNIT

■ SIDI (Single-Direction) MODE

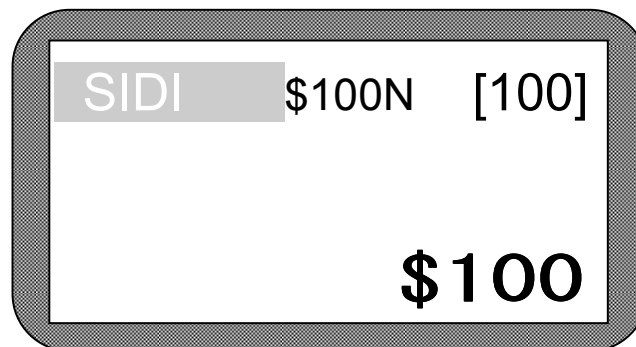
SIDI mode is combination of SINGLE and DIRECTION mode. Only single denomination with same direction (either Orientation or Face/Back depending on setting) will be counted. Banknotes with all other denominations and same denomination with other direction will be fed into the pocket. Setting of counting denomination is as same as it is in the SINGLE count mode, and direction will be set in the FACE/BACK or ORIENT setting in the SETUP mode.

1. Press the **MODE** key to select the **SIDI** mode. The LCD display will switch.



Note: The amount counted is automatically displayed. You can display number of bills counted by pressing the **UNIT key.**

2. If **AUTO START** is set, when bills are placed in the hopper, operation starts automatically. If **AUTO START** is not set, press the **RESTART/STOP** key.
3. When the hopper runs out of bills, operation stops automatically. The amount counted is displayed.

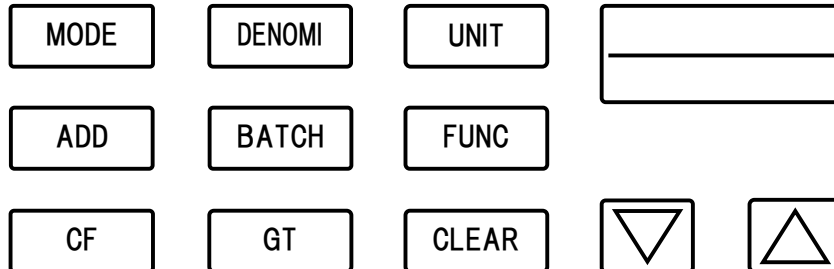


Note: SIDI mode discriminates denominations and directions. Bills the denomination and/or the direction could not be determined are fed to the pocket.

Other Operation Keys Useable With the SIDI Mode
(1) BATCH (2) ADD (3) CF (4) DENOMI (5) GT (6) UNIT

EXPLANATION OF OPERATION KEYS

There are 12 operation keys as shown below.



1. **MODE** KEY

The **MODE** key is used when selecting the five modes (**FREE, MIXED, SINGLE, SEPA, DIRECTION, SIDI**) and the **SET UP** mode.

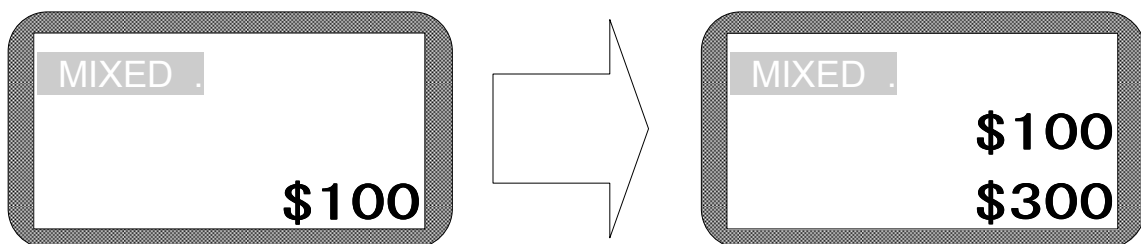
When the **MODE** key is pressed, the currently selected mode is changed.



The mode is displayed in light text on a dark background at the upper left of the LCD display. (In the example, MIXED is selected.)

2. **ADD** KEY

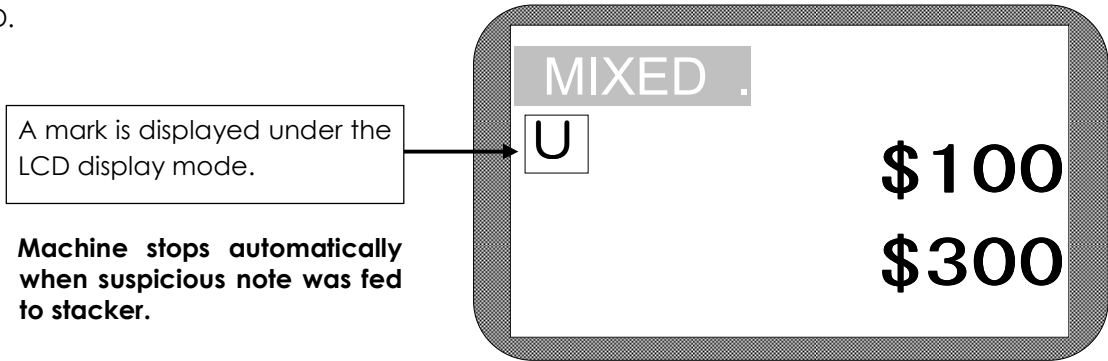
The **ADD** key is used when counting the counted bill amount or number of bills while showing the addition display. When the **ADD** key is pressed, as shown below, the display switches to a two level display. The lower level shows the cumulative amount and the upper level shows the current counted amount.



Note: When the **ADD key is pressed, the count including the total count is cleared to 0.**

3. **CF** KEY

This is pressed when counting requires detecting suspicious notes and/or counterfeits. When the **CF** key is pressed, the magnetic detection function operates. A **U magnet mark** is displayed on the LCD.



Note: CF key is enabled while MG mode is set in the SET UP mode.

4. **DENOMI** KEY AND **GT** KEY

DENOMI key is Specified bill denominations for **SINGLE** and **SIDI** mode. And a list of operation results for each denomination displayed on the LCD screen.

How to specify the denominations

1. When the **DENOMI** key is pressed. The LCD displayed shows denomination table.
2. Press the **▲** and **▼** keys to select AUTO or a denomination specified by *.
3. Press the **RESTART/STOP** key for registration of selected Auto or a denomination.

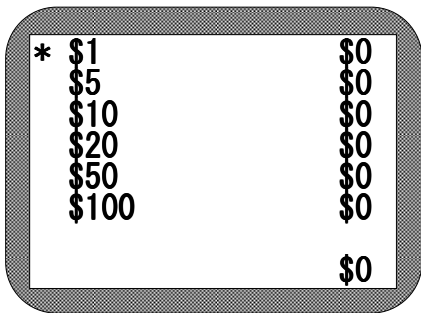
DENOMI	SELECT
* AUTO	\$5N
\$1	\$10N
\$5	\$20N
\$10	\$50N
\$20	\$100N
\$50	
\$100	

Explanation
<p>AUTO A bill fed through the machine first is set as specified denomination. Bills of the specified denomination are fed to the stacker. All bills of different denominations are fed to the pocket.</p> <p>At specified denomination You can select a desired denomination. Bills of the specified denomination are fed to the stacker. All bills of different denominations are fed to the pocket.</p>

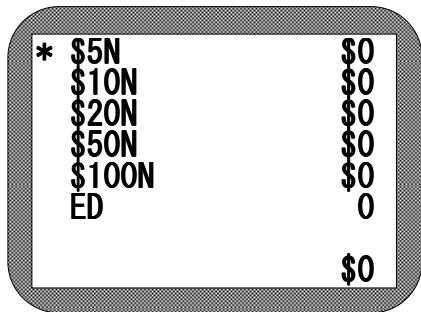
Note: If OFF is specified for the DETECT setting in SET UP mode, new and old bills are not distinguished.

How to displayed the list of operation results.

1. Keep pressing **DENOMI** key until display shows list of operation results for each denomination.
2. Also, when the **GT** key is pressed, a list of cumulative operation results for each denomination is displayed.



The count breakdown of the 11 denominations (both new and old bills) and the number of undetermined notes (ED), and total number of bills or amount are displayed at the bottom level.
Data of the individual denominations is displayed by two scrolls. For undetermined notes (ED), only the number of notes will display.



Note1: There is no list display with the FREE mode.

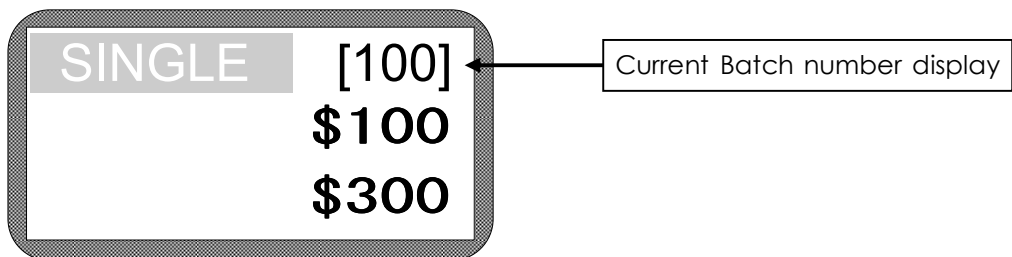
Note2: If OFF is selected for the DETECT setting in the SET UP mode, no distinction is made between new and old bills and they will be displayed as one denomination.

When the **GT** key is pressed, grand total of each denomination and number or amount are displayed.

The **▲** and **▼** keys are used to move the position of the * mark to the specified denomination in this display list. The **CLEAR** key allows you to clear to 0 for specific denomination.

5. BATCH KEY

The **BATCH** key is used for selecting batch number. The 5 batch settings[100⇒50⇒25⇒20⇒10⇒...] are preset. The current batch number is displayed. BATCH function is effective only in **FREE**, **SINGLE**, and **SIDI** mode.



Note 1: If BATCH START is set ON in Set Up Mode, counting will automatically start when the notes are removed from the Stacker.

Note 2: If the machine receives batch number data by transmission, **BATCH key, **▲** key and **▼** key related to batch number will be ineffective. To reset, turn off the power and then turn it on again.**

6. UNIT KEY

The **UNIT** key is used to select the display in either number of bills or value. When displaying amount, a \$ sign will appear. When displaying in units, only a numerical value is displayed. When using the **FREE** mode, the amount display is not used.

7. RESTART/STOP KEY AND CLEAR KEY

The **RESTART/STOP** key is to start counting or to stop counting during operation. The **CLEAR** key is pressed when clearing the counting results or when removing an error during counting. Even if **CLEAR** key was pressed to clear an error occurred during counting, machine does not start automatically while **AUTO START** setting is set in **SET UP** mode. It is necessary to press **RESTART/STOP** key to start counting.



8. FUNC KEY

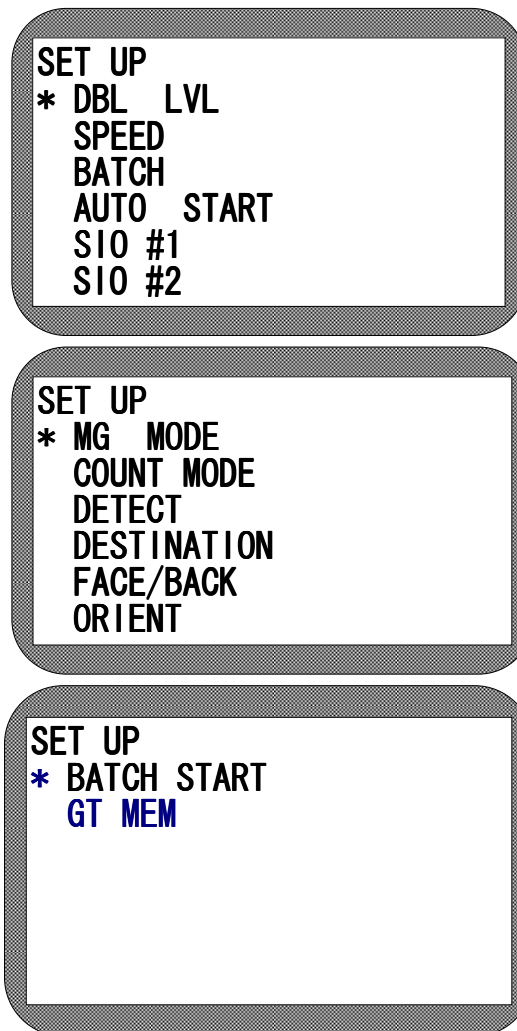
1. The **FUNC** key is used to print out the results of the count.
 - After counting is completed, press the **FUNC** key to print the results of the count. (The count data will be added to the GT.)
 - The **FUNC** key is used to print out the grand total.
Press the **GT** key to display the grand total on the LCD, and then press the **FUNC** key to output the grand total on the printer.
Note: Printing is available only when printer is connected.
2. When **AUTO SEND** is set **ON** in **SET UP** mode, counted data will be transmitted by pressing **FUNC** key after counting.

SET UP MODE

Details of each operating mode is required for proper set up for your purpose of usage.

HOW TO ENTER THE SET UP MODE

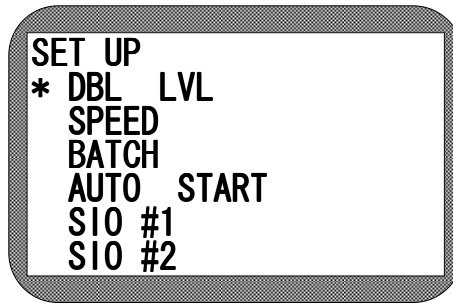
1. Turned on the power switch while pressing the **MODE** key and the **RESTART/STOP** key, then enter the **SET UP** mode.
2. Press the  and  keys to move the * mark and select the item to set.



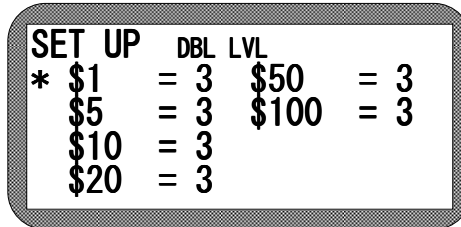
The **14** items shown in the figure can be set. In the following section, we will explain the items that are used in the **SET UP** mode.

TRANSPARENCY LEVEL SETTING (DBL LVL)

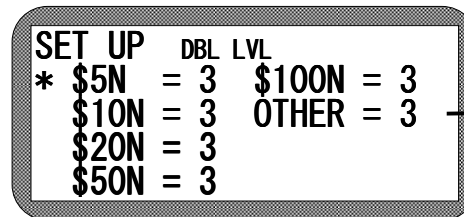
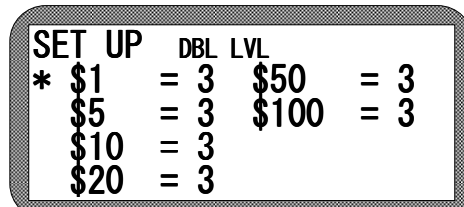
1. Press the Δ and ∇ keys to move the * mark and select **DBL LVL**.



2. Press the **RESTART/STOP** key. The LCD shows current set level for each denomination.



3. Press the Δ and ∇ keys to move to the denomination position of the * mark, and use the **CF** key (to increase by 1 level) or the **GT** key (to decrease by 1 level) for the adjustment. The numerical value set is adjusted in five levels from 1 through 5.



OTHER is set when counting paper, other than bills.



4. When adjustment is completed, press the **RESTART/STOP** key for registration of the adjusted level and return to **SET UP** mode.

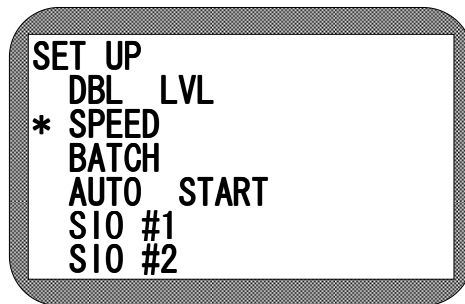
Note: The value of the levels of each denomination mentioned on the above display are factory settings. Settings depend on the condition of the bills to be counted. The levels may require adjustment.

Level	Transparency
1	Bright
2	
3	Middle
4	
5	Dark

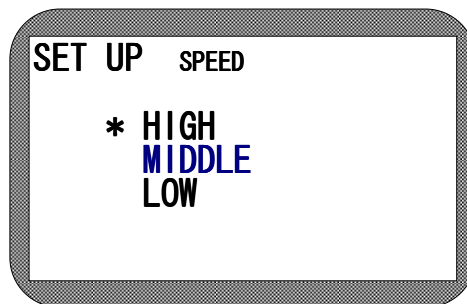
COUNTING SPEED SETTING (SPEED)

Counting speed can be set to **HIGH** (1200 sheets per minute) or **MIDDLE** (1000 sheets per minute) or **LOW** (600 sheets per minute).

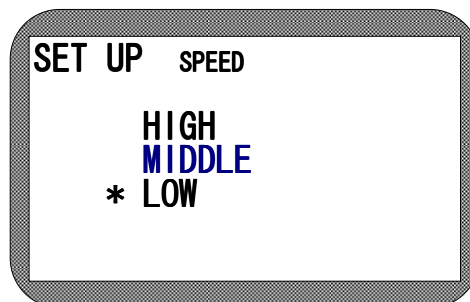
1. Press the  and  keys to move the * mark and select **SPEED**.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



3. Press the  and  keys to move the position of the * mark and specify a counting speed.

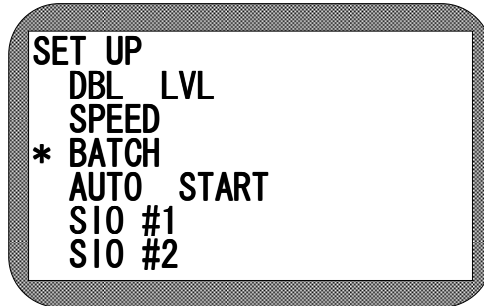


4. When setting is completed, press the **RESTART/STOP** key.

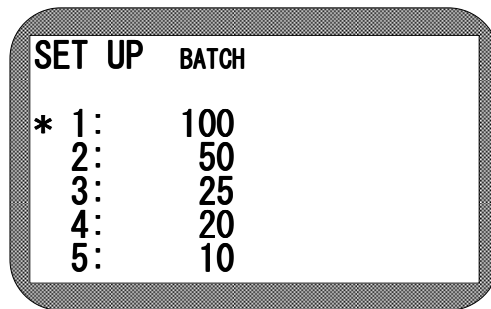
BATCH COUNT SETTING (BATCH)

The **BATCH** key can be used to set one of five preset batches.

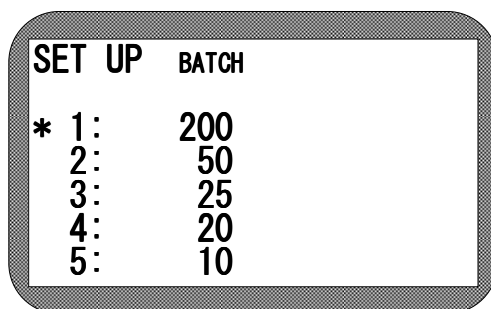
1. Press the **▲** and **▼** keys to move the * mark and select **BATCH**.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.





3. Press the **▲** and **▼** keys to move to the table position at which to set the * mark. Use the **CF** key (to increase 1) or the **GT** key (to decrease 1) to set the batch count.

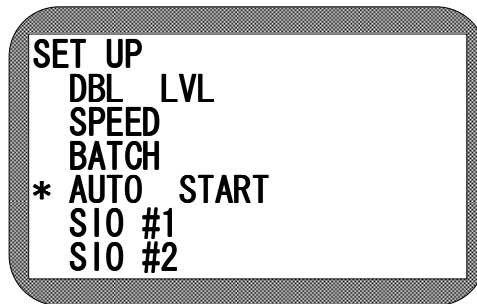


4. When setting is completed, press the **RESTART/STOP** key.

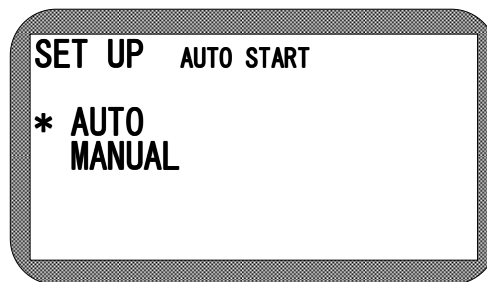
AUTO START SETTING (AUTO START)



Counting starts automatically when bills are placed in the hopper. If you do not want the **AUTO START** mode, then set **MANUAL**.

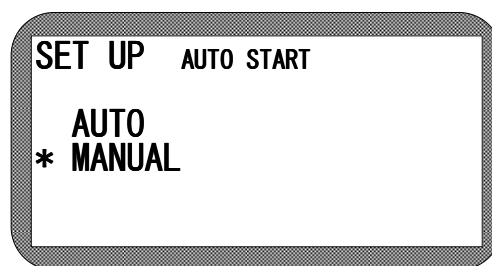
1. Press the  and  keys to move the * mark and select **AUTO START**.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



3. Press the  and  keys to move the * mark to the position for setting.




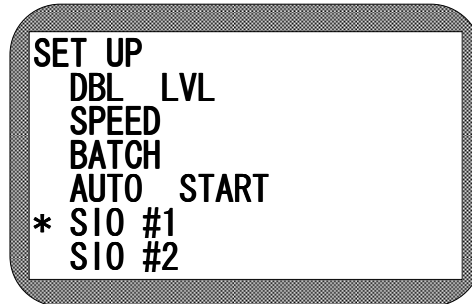
4. When setting is completed, press the **RESTART/STOP** key.

SERIAL PORT 1 AND 2 SETTING (SIO #1&SIO #2)

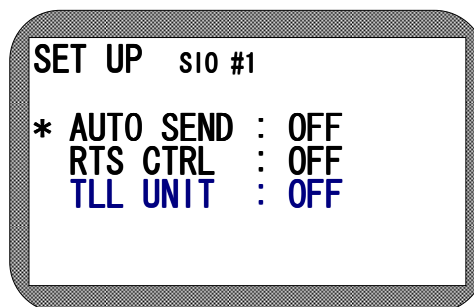
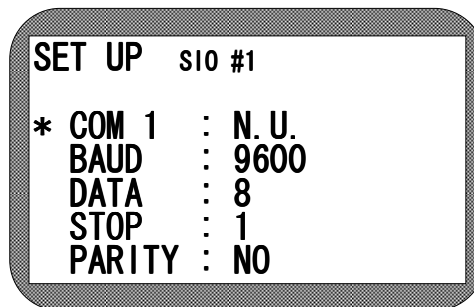
This is set when a serial interface board is installed, and when setting communication with a PC or printer.

Caution: The user should contact only an authorized sales or service representative for proper communication settings.





1. Press the  and  keys to move the * mark and select SIO #1 or SIO #2.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



Set the 8 communication related items shown in the adjoining

3. Press the  and  keys to move the * mark to the position for setting, then set by using the  key or the  key.

```

SET UP  S10 #1
* COM 1  : N. U.
  BAUD   : 4800
  DATA  : 7
  STOP   : 1
  PARITY : EVEN
  
```

```

SET UP  S10 #1
* AUTO SEND : OFF
  RTS CTRL  : OFF
  TTL UNIT  : OFF
  
```

When the **CF** key or **GT** key is pressed to set an item, the setting contents will be displayed which changes in sequence as shown below.

COM1: N.U. - PRINTER - DISPLAY - P.C.

(Select a name of the device to be connected to port 1. NU means not used.)

BAUD: 4800 - 9600 - 19200

(Communication speed: Set the baud rate.)

DATA: 7 - 8

(Set the length of the data to communicate.)

STOP: 1 - 2

(Set the stop bit.)

PARITY: NO - ODD - EVEN

(Set the parity.)

AUTO SEND: OFF - ON

(Select automatic or manual transmission of counted data.)

RTS CTRL : OFF - ON

(Select RTS CTRL effective or ineffective.)

TTL UNIT : OFF - ON

(Select the total piece numbers are printed or not printed.)

Explanation for AUTO SEND and RTS CTRL and TTL UNIT settings

AUTO SEND equal ON:

When notes are removed from the Stacker after counting, counted data will be transmitted automatically.

AUTO SEND equal OFF:

Counted data will be transmitted when FUNC key is pressed after counting. (FUNC key needs to be pressed before removing the notes from the Stacker.)

RTS CTRL equal ON:

D-551 can control the transmission of the host by sending RTS signal for 100msec after it finishes sending data.

RTS CTRL equal OFF:

Control by RTS signal will not be available.

TTL UNIT equal ON:

When used to print out the grand total, the total piece numbers are printed.

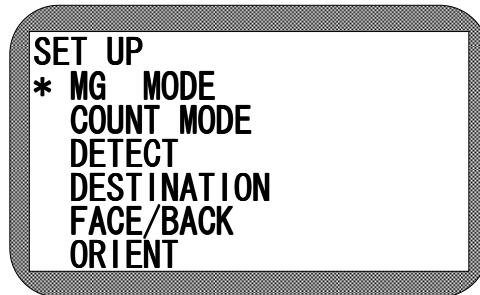
TTL UNIT equal OFF:

The total piece numbers are not printed.

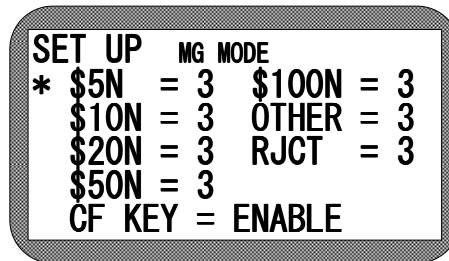
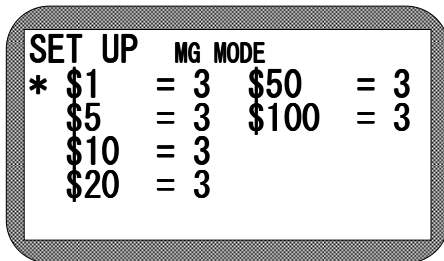
4. When the 8 items have been set, press the  key.

MG DETECTION FUNCTION SETTING (MG MODE)

1. Press the Δ and ∇ keys to move the * mark and select **MG MODE**.

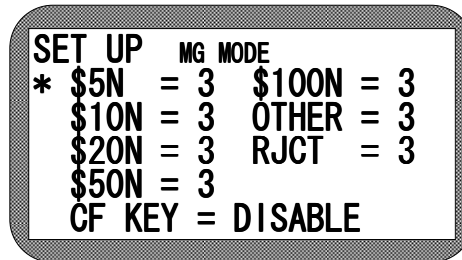
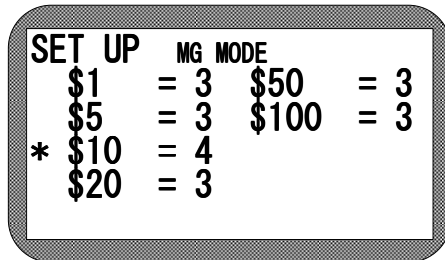


2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



RJCT is set when checking the CF function of undetermined notes (ED)

3. Press the Δ and ∇ keys to move the * mark and specify a denomination. And use the **CF** key (to increase by 1 level) or the **GT** key (to decrease by 1 level) for the MG detecting level adjustment.



CF KEY setting: ENABLE and DISABLE can alternately be selected by pressing GT key or CF key.
 1. When ENABLE is selected: Availability of CF detection can be selected by pressing CF key.
 2. When DISABLE is selected: Availability of CF detection cannot be selected by CF key. CF detection is always ON.

4. When settings are completed, press the **RESTART/STOP** key.

Note: The setting contents will be displayed, changing in sequence as shown below.

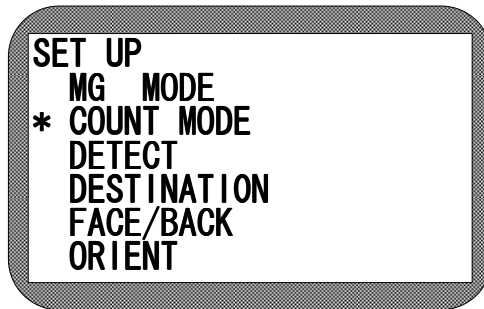
CF key 0 → 1 → 2 → 3 → 4 → 5
GT key 0 ← 1 ← 2 ← 3 ← 4 ← 5

Level	MG Detecting level
0	Off
1	Low
2	
3	Middle
4	
5	High

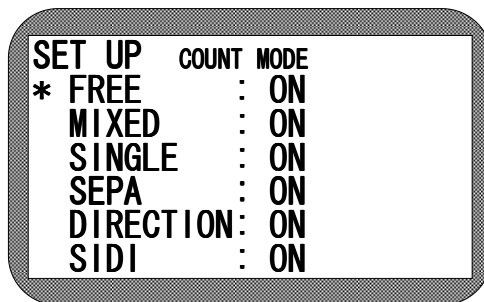
OPERATION MODE SETTING (COUNT MODE)

Operation mode is selected by pressing the **MODE** key. This mode selects workable operation modes during normal usage.

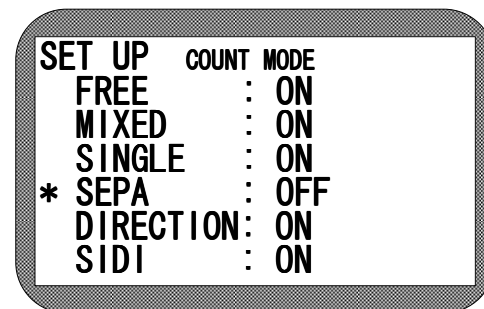
1. Press the **▲** and **▼** keys to move the * mark and select **COUNT MODE**.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



3. Press the **▲** and **▼** keys, select the operation mode to set, and use the **CF** key or **GT** key to set **ON** or **OFF**.



Note: It is possible to set individual mode “ON” or “OFF”. If an mode sets “ON”, the mode is showed on display to the normal usage. However, if set “OFF”, It does not show on display.

4. When settings are completed, press the **RESTART/STOP** key.

DETECT NEW/OLD BILL SETTING (DETECT)

New and old bills are distinguished with this setting.

If **ON** (detect) is selected:

In **SINGLE mode**, **SIDI mode** new bills can be set to the specified denomination. Unspecified bills can be handled as **D.D.** (For example, if new \$5 bills are the specified denomination, old \$5 bills and other denominations will become the D.D.)

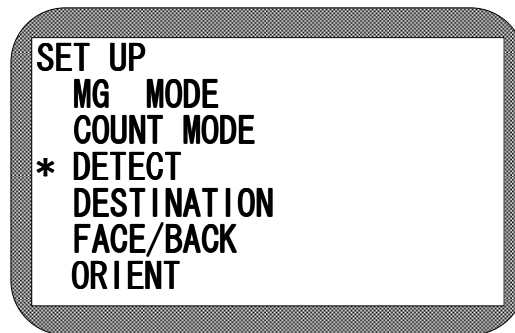
In **MIXED mode**, new bills will display separately in the count denomination list (the **DENOMI** key)

In **SEPA mode**, new and old bills can be specified in place of the denomination (**DENOMI CHANGE**)

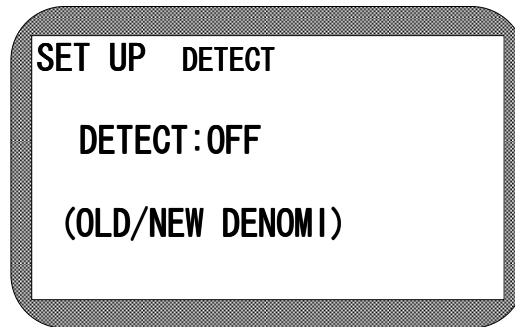
If **OFF** (do not detect) is selected:

New and old bills are not distinguished.

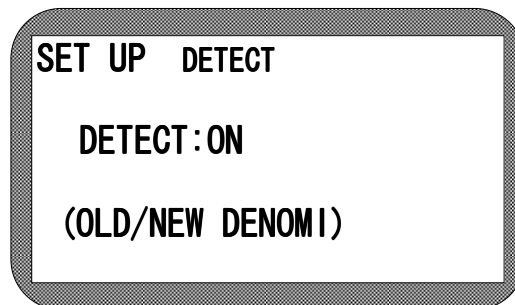
1. Press the  and  keys to move the * mark and select **DETECT**.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.





3. Press the  and  keys to select **ON** (detect) or **OFF** (do not detect).

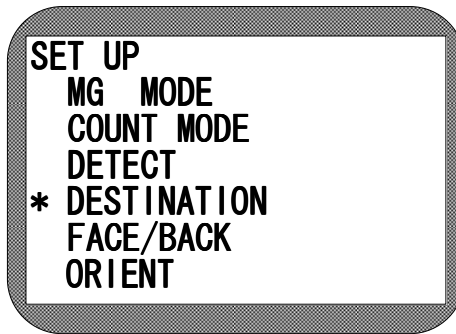


4. When setting is completed, press the **RESTART/STOP** key.

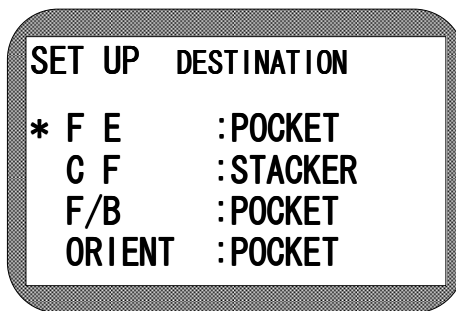
REJECT UNSPECIFIED BILL SETTING (DESTINATION)

Destination of bills to be fed is selectable for stacker or pocket.



1. Press the  and  keys to move the * mark and select **DESTINATION**.

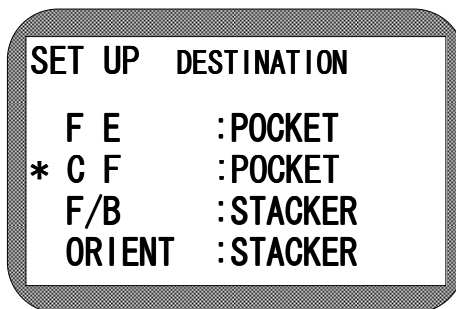


2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



Abbreviation	Explanation
FE	Feeding error bills
CF	Suspicious notes
F/B	Different surface bills

3. Press the  and  keys to select the item by moving the * mark and specify **POCKET** or **STACKER** as the destination with the **GT** key or the **CF** key.





1. **When stacker is specified :**
Unspecified bills are moved to the stacker, the equipment will suspend counting. At the same time, a message will display on the LCD.
2. **When pocket is specified :**
While unspecified bills are moved to the pocket, counting continues.

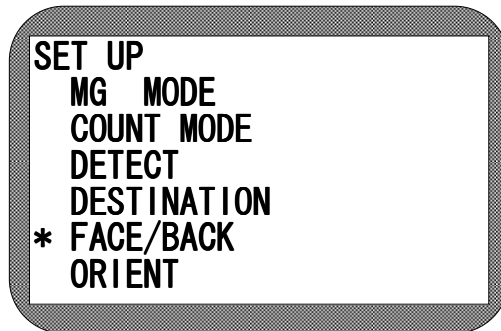
4. When settings are completed, press the **RESTART/STOP** key.

Note: If stacker is specified as the reject destination for the unspecified bills, they will not be included in the count.

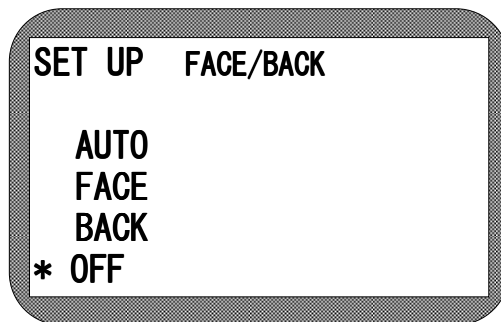
FACE AND BACK SPECIFICATION SETTING (FACE/BACK)


This setting is for **DIRECTION** mode. The machine counts while detecting the front or back surface of the bill. Note that when automatic specification is selected, the surface of the bill that was first counted becomes the specified surface.

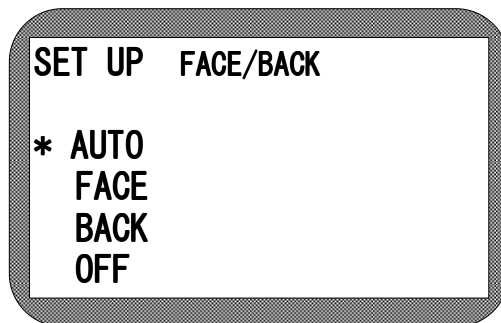
1. Press the  and  keys to move the * mark and select **FACE/BACK**.



2. Press the  key. The current setting is displayed on LCD.



3. Press the  and  keys to move the * mark and set to **AUTO, FACE, BACK, or OFF** (nothing specified).



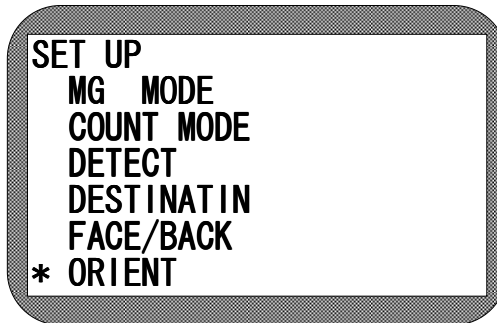
4. When setting is completed, press the  key.

ORIENTATION SPECIFICATION SETTING (ORIENT)

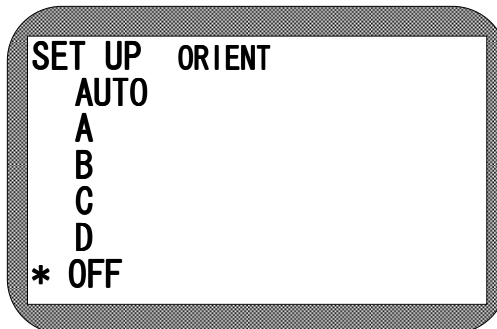
This setting is for **DIRECTION** mode.

The machine counts while detecting the left or right direction of the bill. Bills for which the direction is undetected are moved to the pocket. Note that when automatic is selected, the direction of the bill that was first counted becomes the specified direction.

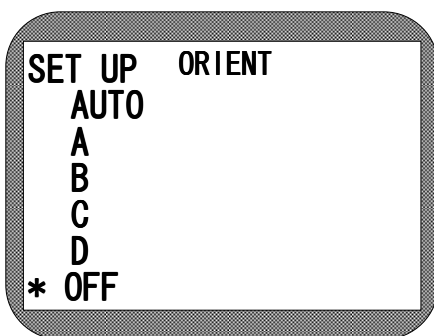
1. Press the  and  keys to move the * mark and select **ORIENT**.



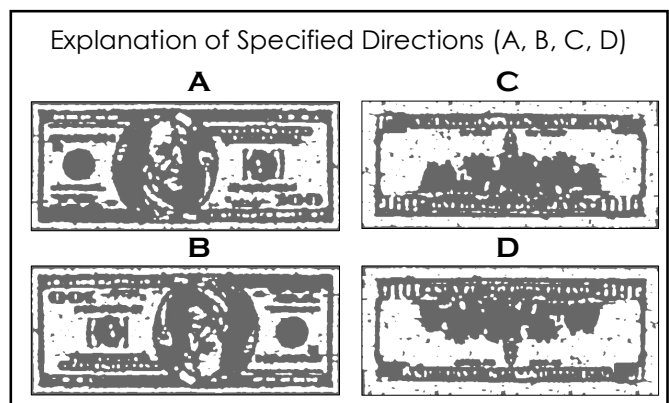
2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



3. Press the  and  keys to move the * mark and set to **AUTO**, **A** through **D** direction specification, or **OFF** (nothing specified).





AUTO: Direction when first counted.

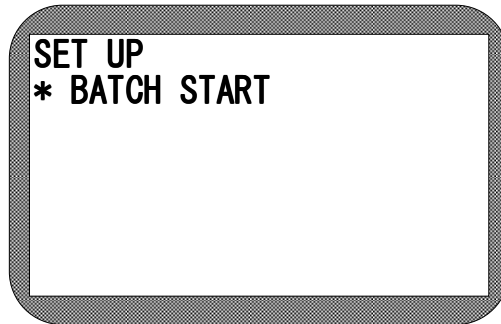


4. When setting is completed, press the **RESTART/STOP** key.

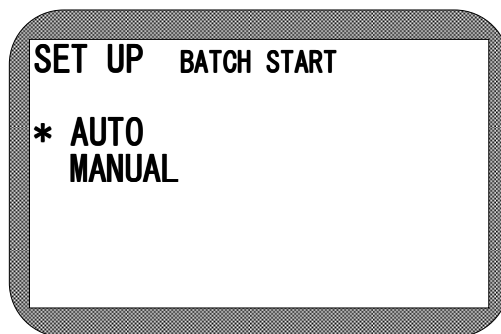
BATCH START SETTING (BATCH START)



This setting is to set automatic start after batch stop.

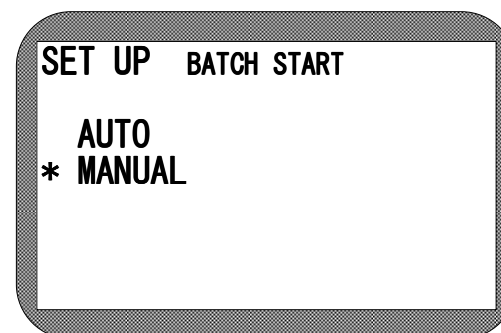
1. Press the  and  keys to move the * mark and select **BATCH START**.



2. Press the **RESTART/STOP** key. The current setting is displayed on LCD.



3. Press the  and  keys to move the * mark to the position for setting.

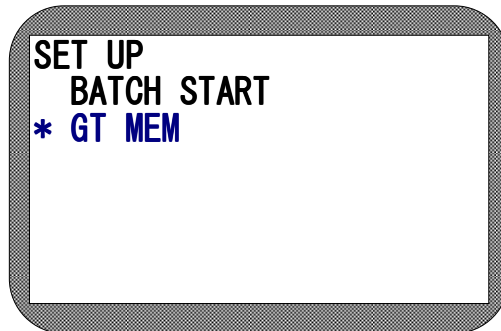


4. When setting is completed, press the **RESTART/STOP** key.

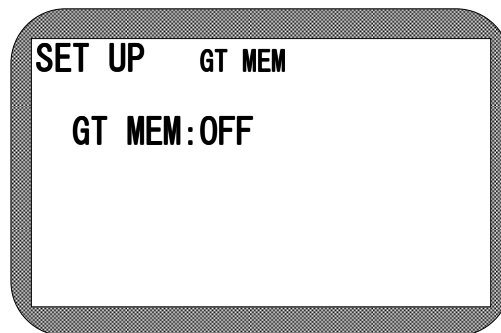
GT MEM SETTING (GT MEM)

This is to set whether or not to keep the grand total number (amount) without clearing when turning the power OFF.

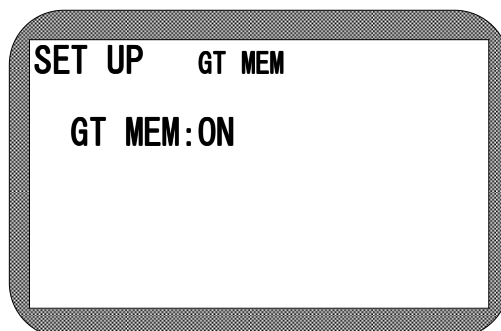
1. Press the  and  keys to move the * mark and select **GT MEM**.



2. Press the  key. The current setting is displayed on LCD.



3. Press the  key or  key to set **ON** or **OFF**.



4. When setting is completed, press the  key.

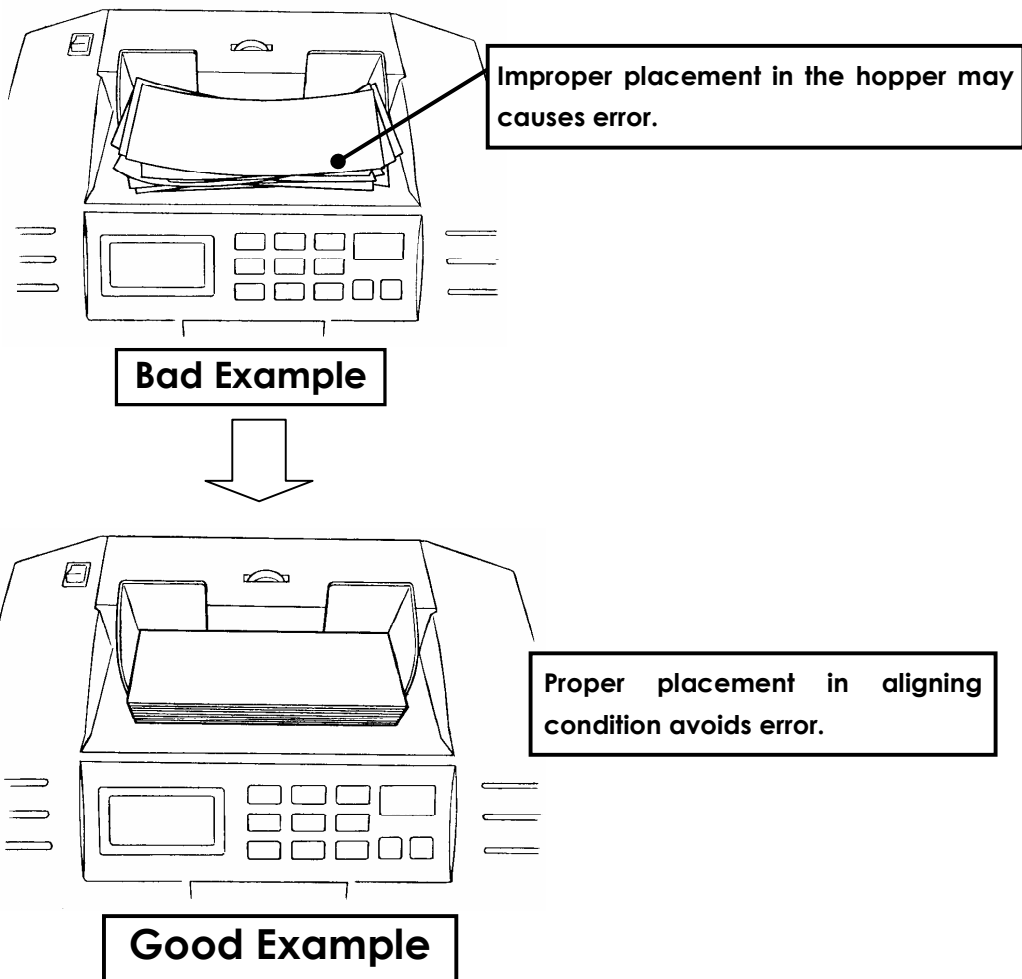
HOW TO SET BILLS ON THE HOPPER

CHECK CONDITION OF BILLS PRIOR TO SET

- Align the bills before placing them in the hopper.
- Remove, in advance, foreign objects such as clips, paper, or debris from the bills.
- Straighten the bills with dog-ear or folds, before placing in the hopper.
- For "**Brick Notes**" (bundles of brand-new notes that are stuck to each other with ink), bend and flex the stack before setting it in the hopper.

HOW TO PLACE BILLS

- To prevent errors during counting, tap the bundles of bills to align the horizontal and vertical edges before placing them in the hopper. Counting bills without aligning them may cause transport errors and jams.



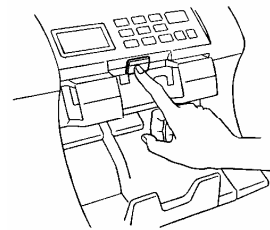
HOW TO REMOVE JAMMED BILLS

HANDLING OF JAMMED BILLS

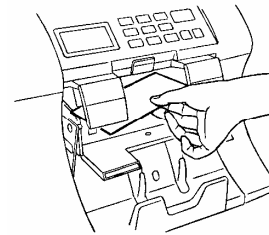
When a jam error is detected and displayed, the user is required to remove the bill according to the error code.

1. POCKET TRANSPORT PATH JAM

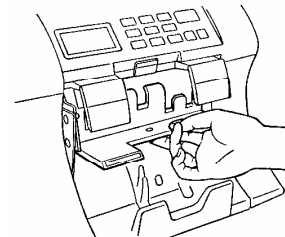
Step 1. Press the pocket open button at the bottom of the operation panel. The pocket bottom will open automatically.



Step 2. Remove jammed bills from the transport path.

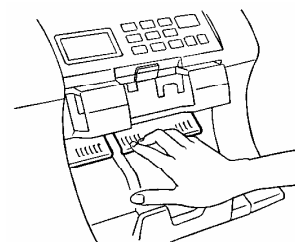


Step 3. Lift bottom of the pocket by hand and lock the pocket. Make sure it is locked.

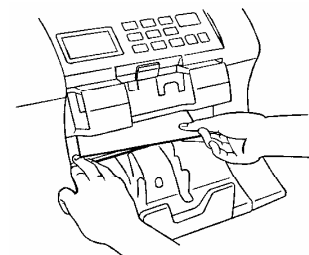


2. STACKER TRANSPORT PATH JAM

Step 1. Press by hand the stacker transport guide downward. The transport path will open.

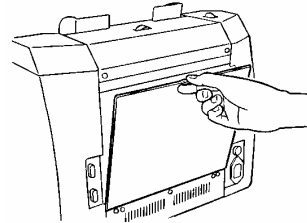


Step 2. Remove bills with one hand while holding the stacker transport guide with the other hand.

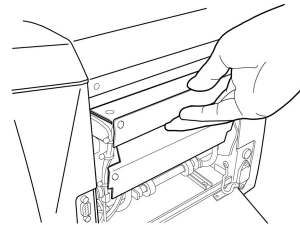


3. REAR TRANSPORT GUIDE JAM

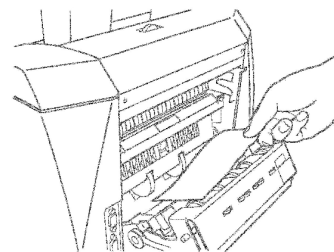
Step 1. Grasp the handle on the rear cover and open.



Step 2. Lifting up the handle of the rear transport guide (green) and open towards you.



Step 3. Remove bills from the rear transport path. Use the reverse procedure to close the rear transport guide and rear cover.

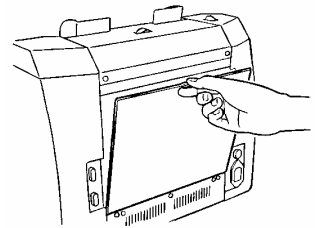


DAILY CLEANING OF THE MACHINE

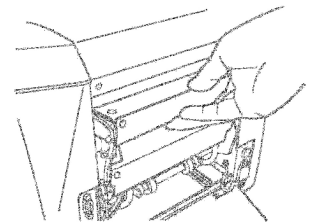
Sensors for detecting bills are installed in the machine. When paper fibers accumulate on the surface of the sensors, an ERROR message will appear. Please clean the machine everyday. When cleaning the cover or external surface of the equipment, please use neutral detergent. Please do not use alcohol, thinner or benzene.

Cleaning the Detection Sensor

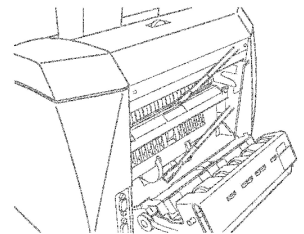
Step 1: Open the rear cover by holding its handle.



Step 2: Open the Rear Transport Guide (green) towards you by lifting its handle up.

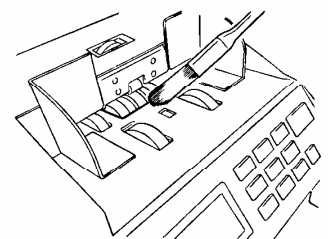


Step 3: Insert the brush attachment in the space between the Line sensors, and move it from side to side to remove dust. Remove the dust on Rear Guide also in the same way.



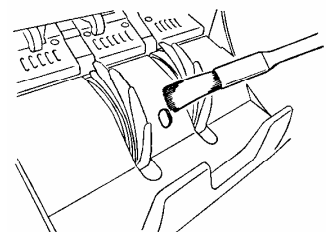
Cleaning the Hopper Sensor

The hopper sensor is near the center of the hopper. Remove the paper fibers from the surface of the sensor with the brush attachment.



Cleaning the Stacker Sensor

The stacker sensor is near the center of the stacker plate. Remove the paper fibers from the surface of the sensor with the brush attachment.



ERROR

ERROR CODE AND MESSAGE

FEEDING SECTION ERROR MESSAGE

Error Code	Display message	Cause of Error	Procedure
ERROR 01	SKEW	Skew bill fed	Please press CLEAR key to delete error message. If it cannot be deleted, please request for service.
ERROR 02	DOUBLE	Double bills fed	
ERROR 03	OVER-BATCH	Over Batch	
ERROR 04	CHAIN	Chain bills fed	
ERROR 05	SHORT	Short bill fed	
ERROR 06	HALF	Half bill fed	
ERROR 07	GAP	Inaccurate feeding timing	
ERROR 08	JAM/L-SNS	Jamming at line sensor unit	
ERROR 09	JAM/GATE	Jamming at gate area	
ERROR 0A	JAM/POCKET	Jamming at pocket	
ERROR 0B	JAM/STACKER	Jamming at stacker	

DENOMINATION ERROR MESSAGE

Error Code	Display message	Cause of Error	Procedure
ERROR 33	Orient	Different direction bills	Please press the CLEAR key.
ERROR 34	F/B	Different FACE/BACK bills	
ERROR 35	CF (MG)	Suspicious notes	

MACHINE TROUBLE ERROR MESSAGE (Call BILLCON service or sales)

Error Code	Display message	Cause of Error	Procedure
ERROR 71	H-MOTOR	Hopper motor trouble	Please press CLEAR key to delete error message. If it cannot be deleted, please request for service.
ERROR 72	S-MOTOR	Stacker motor trouble	
ERROR 73	L-SENSOR	Line sensor trouble	
ERROR 74	G-SENSOR	Gate sensor trouble	
ERROR 75	P-SENSOR	Pocket sensor trouble	
ERROR 76	S-SENSOR	Stacker sensor trouble	
ERROR 77	COM1	Serial port COM1 trouble	
ERROR 78	COM2	Serial port COM2 trouble	
ERROR 79	GATE (LOW)	Reject guide path sensor trouble	
ERROR 7A	GATE (UP)	Stacker guide path sensor trouble	
ERROR 7B	LCD-I/F	LCD interface trouble	
ERROR 7C	HPI	Host-port interface error	

DATA ERROR MESSAGE (Call BILLCON service or sales.)

Error Code	Display message	Cause of Error	Procedure
ERROR 81	FRAM1	CHECK-SUM error	Please press CLEAR key to delete error message. If it cannot be deleted, please request for service.
ERROR 82	FRAM2	CHECK-SUM error	
ERROR 83	FRAM3	CHECK-SUM error	

ALARM MESSAGE

Display message	Cause of Error	Procedure
POCKET FULL	Pocket is filled to capacity.	Please remove the bills. Restart the count.
STACKER FULL	Stacker is filled to capacity.	
F-COVER OPEN	Front cover opened	Please close the opened cover.
R-COVER OPEN	Rear cover opened	
DENOMI CHANGE	Denomination changed in SEPA mode	Please remove the bills from the stacker. Restart the count.
CLEAR STACKER	When batch counting in a new mode starts with some notes still left in the stacker from the previous MIX mode.	Please remove the bills from the stacker, and press the restart key.

SPECIFICATIONS

Dimensions	Without hopper guide: 330 (W) X333 (D) X300 (H) mm (13 (W) X13.1 (D) X11.8 (H) inch) With hopper guide: 330 (W) X333 (D) X343 (H) mm (13 (W) X13.1 (D) X13.5 (H) inch)
Weight	Approx. 13.5Kg(30LBS)
Counting speed	1200 notes/min and 600 notes/min
Applicable notes	MIXED, SINGLE, SEPA, DIRECTION, SIDI mode: US notes \$1, \$5, \$10, \$20, \$50, \$100 FREE mode: Minimum 55mmX120mm Maximum 97mmX156mm Thickness 0.06~0.12mm
Feed system	Roller friction type
Hopper capacity	500 notes
Stacker capacity	200 notes
Pocket capacity	100 notes
Power source	120 VAC \pm 10% 60HZ
Environmental conditions	Temperature: 5°C~40°C (during operation) -15°C~60°C (during storage)
	Humidity: 30%~70%RH (during operation) 20%~85%RH (during storage) * No condensation is allowed

The specification is subject to change without notice.

Note: The ability of the Product to discriminate banknotes is dependent upon the condition of the banknotes. If a banknote is soiled, damaged, altered or deteriorated in any way, there is a possibility that this Product cannot discriminate such a note.

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