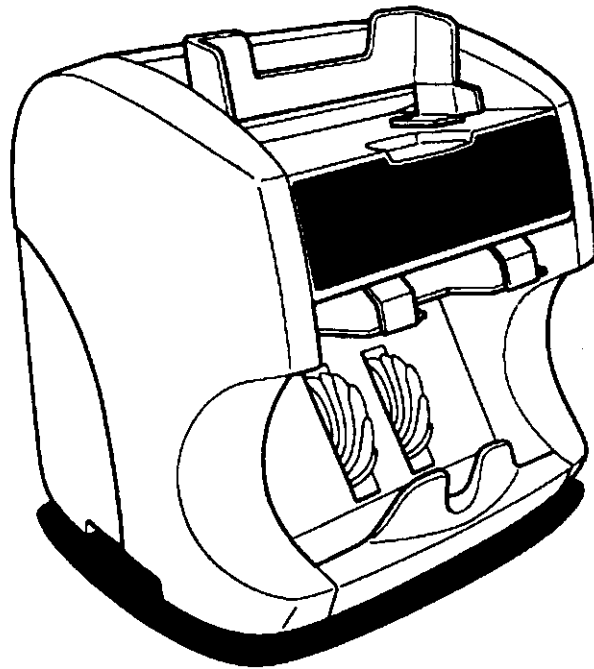


GLORY Currency Reader Counter

# GFR-S80

**Instruction Manual**



## **FOREWORD**

Thank you for selecting the GLORY Currency Reader Counter Model GFR-S80. Before use, please read this manual thoroughly and familiarize yourself with all functions and operations.  
Please keep this manual nearby for quick reference.

The GFR-S80 is designed for counting and depositing US currency. Any modification of the GFR-S80 without GLORY's permission will result in the invalidation of all guarantees.

The information contained in this manual is subject to change without notice. The contents of this manual may not be reproduced in any form without explicit permission of GLORY.

## **SAFETY CONSIDERATIONS**

To use this machine safely

- Three-hole plug which can be grounded to the building ground should be used for the power supply.
- Don't allow multiple wiring from one socket.
- Unplug the machine before it is moved.
- Don't place tools, fingers, hair, clothing, etc. near the hopper.
- Don't open the cover during machine operation. When opening the Hopper make sure that the machine is not operating.
- Use the power cable and I/F cable that are supplied with the machine.

To make the most use of machine

- Avoid operation under direct sunlight.
- Don't press the operation-keys with the pointed tip of pencil or the like.
- Don't spill liquids on or near the machine.
- For maintenance, use specified parts; don't carry out improper maintenance.

## **WARNING**

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate frequency energy and, if not instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

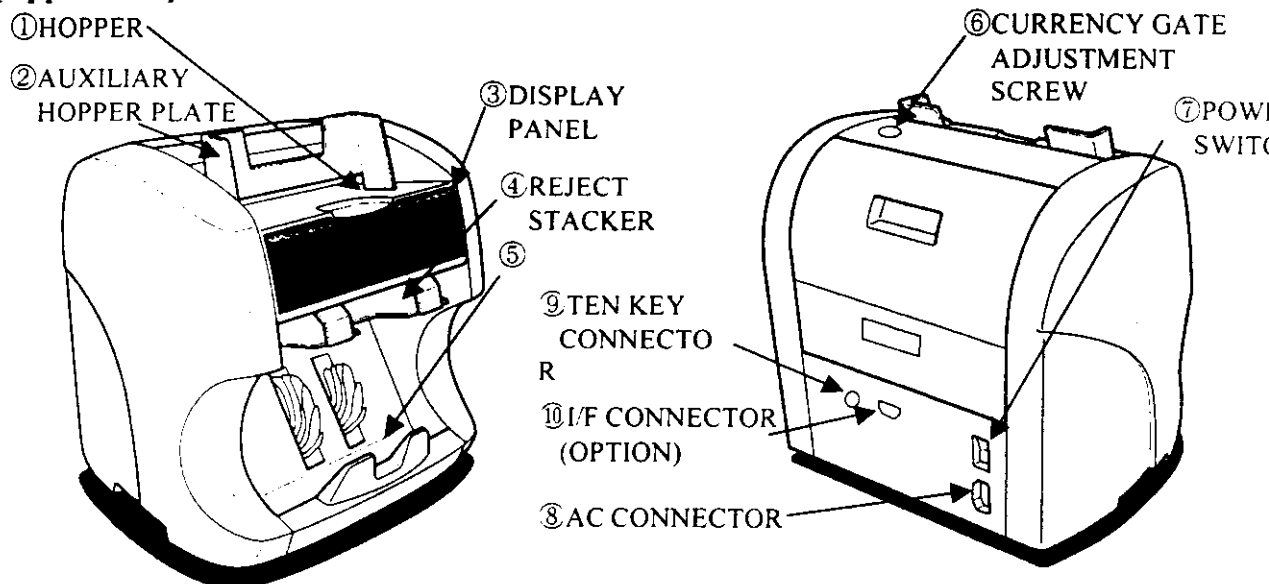
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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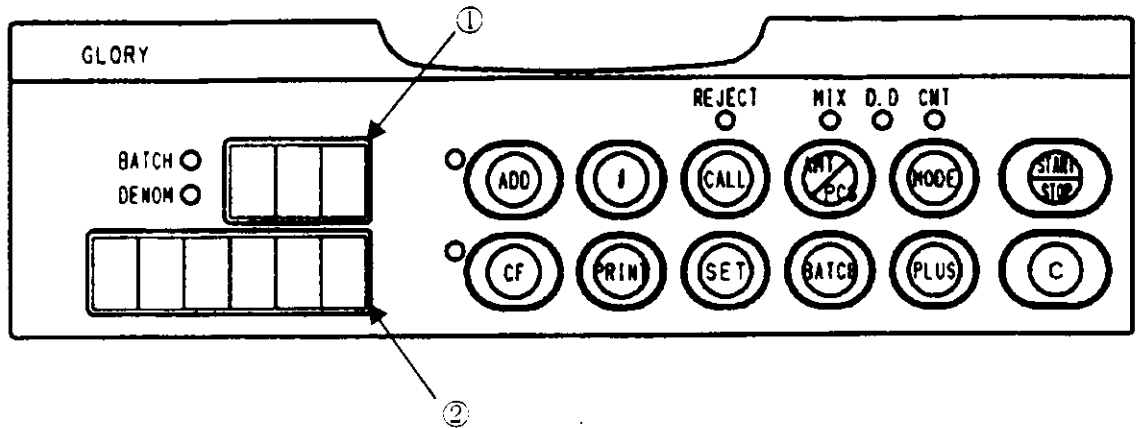
## CHAPTER 1 COMPONENT NAMES AND FUNCTIONS

### [Appearance]



- ① HOPPER  
Set notes in the hopper.
- ② AUXILIARY HOPPER PLATE  
Guide plates for leading the set notes to the note feeding mechanism.
- ③ DISPLAY PANEL  
Key switches and displays necessary for operations.
- ④ REJECT POCKET  
Rejected notes are stacked in the reject stacker.
- ⑤ STACKER  
Counted notes are stacked in the stacker.
- ⑥ CURRENCY GATE ADJUSTMENT SCREW  
Adjust this screw according to note thickness for smooth counting (already adjusted at the factory).
- ⑦ POWER SWITCH  
Main power ON/OFF switch.
- ⑧ AC CONNECTOR  
Connect the power cord to this connector.
- ⑨ TEN KEY CONNECTOR(OPTION)  
Used to connect a keypad for manual input.
- ⑩ I/F CONNECTOR(OPTION)  
Used to connect a communication line (Connected with an optional printer, P.C., etc. by RS-232C).

## [Display Functions]



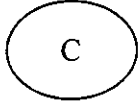
① Batch Denomination.....MIX—Blank. D.D •CNT—Batch Number

② Pieces • Amount.....MIX •D.D—Pcs. •Amt., Amt—Pcs.

## [Key Functions]



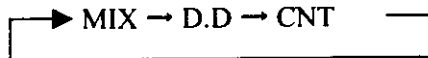
..... Counting start/stop  
• Starts and stops counting.



..... Clear  
• Clears errors.  
• Clears all kinds of denomination information.  
(Counted piece and amount of grand total and each denomination.)



..... Switch modes



※ As changing modes, data counted are cleared to 0.



..... Plus  
• In D.D. and CNT mode, the number of batch(Arbitrary pieces counting) is changed freely in increments of 1.  
• Incremental speed is increased by holding the key more than 1 sec.  
• Max. 200 pcs. ( 2 0 0 → 1 → 2 → ..... )

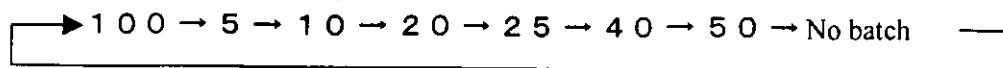


..... Switch pieces and amount display.  
• In Mix and D.D. mode, the number displayed is switched between. Pieces and amount of a denomination.  
• The number displayed during CALL key operation can be switched like above.

BATCH

..... Batch

- In D.D. and CNT mode, the number of batch(Arbitrary pieces counting) is changed freely in increments of preset values shown below.

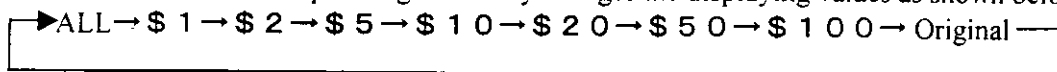



- Using this function, counting data are cleared to 0.
- ※5,10,20,25,40,50,100 are default values.

CALL

..... Call

- In Mix mode, counted piece or amount of a specific denomination is displayed.
- A total pcs./amt. of all denominations is displayed, too. Single pressing of the key changes the displaying values as shown below.



- Choosing a specific denomination, and its total pcs./amt. values is displayed.
- Pressing  key permits escape from the CALL loop at any time.

SET

..... Changes user RAS parameters

- Evokes and enables to change user RAS parameters.
- Each parameter of user RAS is available to change.

#

..... Total data is printed out.

PRINT

..... Data hardcopy

- Prints out data
- Ignored when no data exists

ADD

..... Add function ON / OFF

- Continues to add counted Amt./Pcs. with previously counted Amt./Pcs.

CF

..... Counterfeit detection ON / OFF switch

- Counterfeit detection level ON / OFF

## CHAPTER 2 BEFORE USE


### [Outline]

By user RAS setting, a variety kind of functions are set by a user.

### [How to start]

During idle (no error) Pressing the keys  +  evokes a user setting function.

### [Select of set items]


 Every pressing of the key switch sets items in order shown below.

→ No. 1 → No. 2 → No. 3 → . . . No. 9 → idle


※ Cursor (Blinking) for each item, when evoked, is located at the previously decided one.

### [How to quit]

Method 1

During each item, Press the key 

Method 2

Pressing the key  several times, makes the mode return to idle.

### [Details for each item]

① Terminal interface ON/OFF

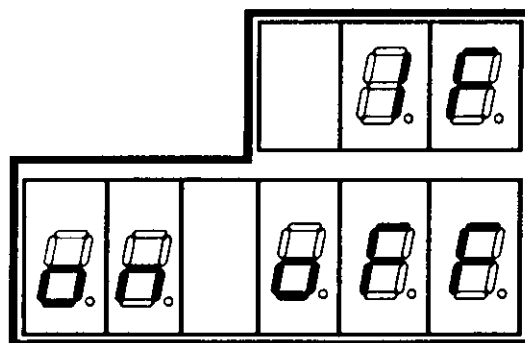
1) Function

Notice a machine whether terminal interface is used or not. (2 levels)

Default value: OFF

※ The function keeps OFF during a printer interface is set ON.

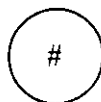
2) Display



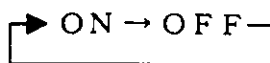
※ Selected value blinks



3) Key



Key . . . A cursor moves in order of



Key . . . Value selected by a cursor becomes new value, then go to No.2 item setup.



Key . . . Value selected by a cursor becomes new value, then go to idle.

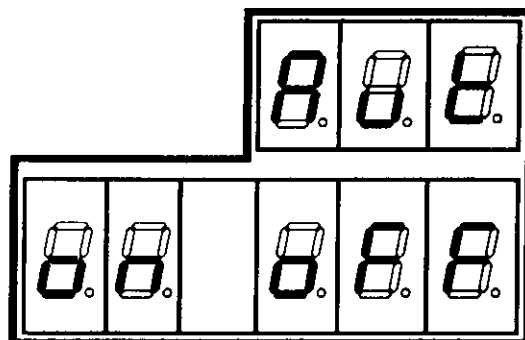
② Autostart ON/OFF

1) Function

Select autostart ON or OFF (2 levels)

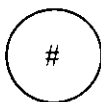
Default value: ON

2) Display

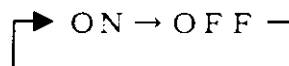


※ Selected value blinks

3) Key



Key . . . A cursor moves in order of



Key . . . Value selected by a cursor becomes new value, then go to No.3 item setup.



Key . . . Value selected by a cursor becomes new value, then go to idle.

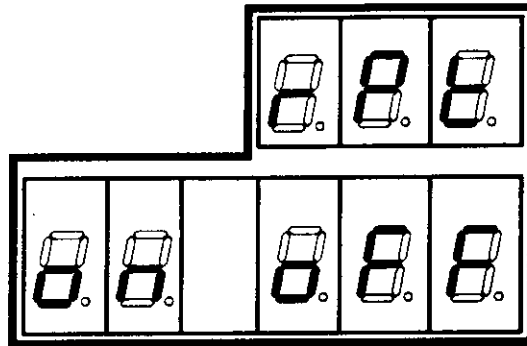
③ Repeat-start ON/OFF

1) Function

Select repeat-start ON or OFF (2 levels)

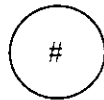
Default value: ON

2) Display

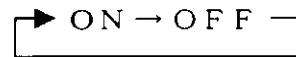


※ Selected value blinks

3) Key



Key . . . A cursor moves in order of



Key . . . Value selected by a cursor becomes new value, then go to No.4 item setup.



Key . . . Value selected by a cursor becomes new value, then go to idle.

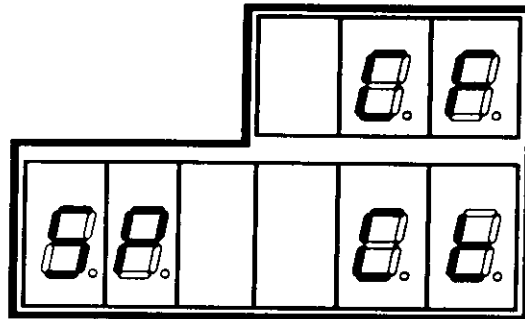
④ Counterfeit detection STOP/CONTINUE

1) Function

In Mix and D.D. mode, enables counterfeit detection or not. (2 levels)

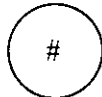
Default value: CONTINUE

2) Display

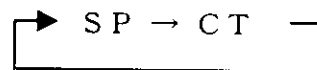


※ Selected value blinks

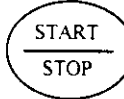
3) Key



Key . . . A cursor moves in order of



Key . . . Value selected by a cursor becomes new value, then go to No.5 item setup.



Key . . . Value selected by a cursor becomes new value, then go to idle.

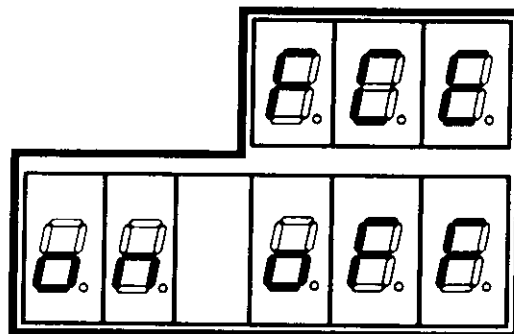
⑤ Face sorting ON/OFF

1) Function

[In Mix and D.D. modes,] enables "face sorting" or not. When enabled, only currencies with their faces up as determined by the first currency are sent to the stacker. All the others are sent to the reject stacker.

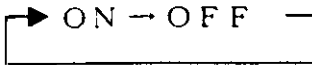
Default value: OFF

2) Display




※ Selected value blinks

3) Key

# Key . . . A cursor moves in order of 

SET Key . . . Value selected by a cursor becomes new value, then go to No.6 item setup.

 Key . . . Value selected by a cursor becomes new value, then go to idle.

⑥ Double sheet detection level (For count mode)

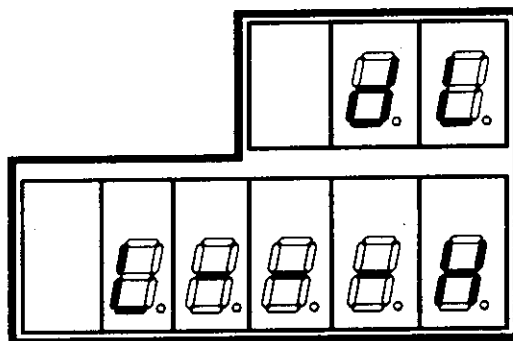
1) Function

Select the double sheet detection level for Count mode. (5 levels)

Default value: Level 3

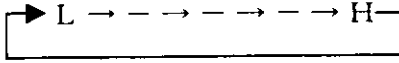
L  $\longleftrightarrow$  H  
Lenient ~ Severe

2) Display




※ Selected value blinks

3) Key

# Key . . . A cursor moves in order of 

SET Key . . . Value selected by a cursor becomes new value, then go to No.7 item setup.

 Key . . . Value selected by a cursor becomes new value, then go to idle.

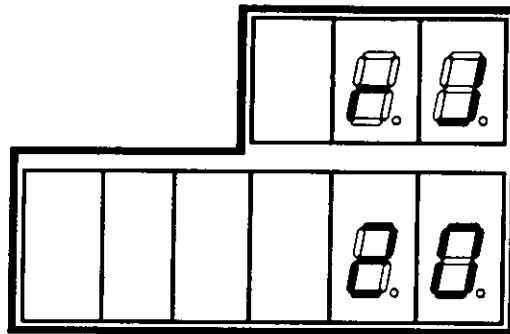
⑦ The number of sheets to make reject stacker full. (Reject full)

1) Function

Set the number of Reject full. ( 1 , 1 0 , 2 0 , 3 0 , 4 0 , 5 0 pcs.)

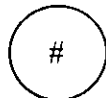
Default value: 2 0

2) Display



※ Display the number of reject full

3) Key



Key . . . A cursor moves in order of 1 → 1 0 → . . . → 4 0 → 5 0



Key . . . Value selected by a cursor becomes new value, then go to No.8 item setup.



Key . . . Value selected by a cursor becomes new value, then go to idle.

⑧ Printer interface ON/OFF

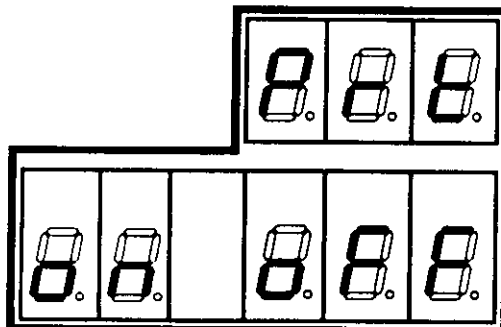
1) Function

Select whether printer is connected or not. (2 levels)

Default value: OFF

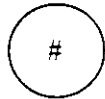
※ The function keeps OFF during a printer interface is set to ON.

2) Display

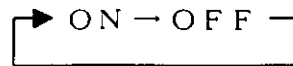


※ Selected value blinks

3) Key



Key . . . A cursor moves in order of



Key . . . Value selected by a cursor becomes new value, then go to No.9 item setup.



Key . . . Value selected by a cursor becomes new value, then go to idle.

⑨ Baud rate

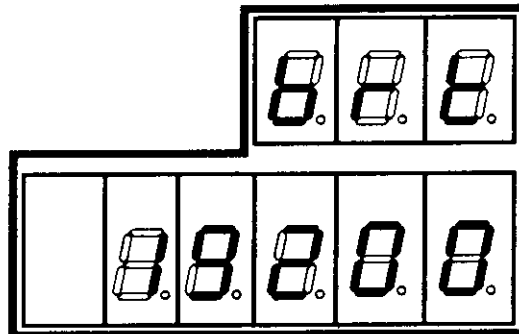
1) Function

Set the baud rate for an external interface. (4 levels)

Default value: 1 9 2 0 0

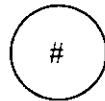
Baud rates : 2 4 0 0 , 4 8 0 0 , 9 6 0 0 , 1 9 2 0 0 b p s

2) Display

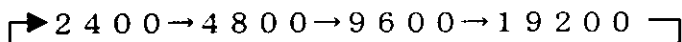


※ Selected value blinks

3) Key



Key . . . A cursor moves in order of



Key . . . Value selected by a cursor becomes new value, then go to idle.

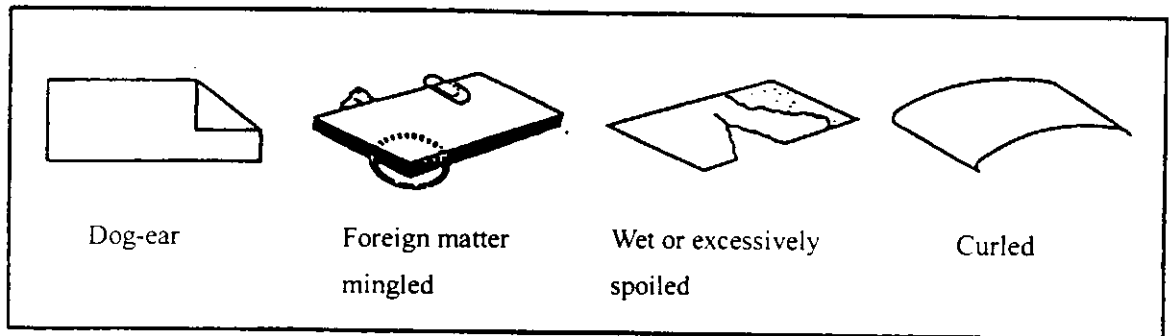


Key . . . Value selected by a cursor becomes new value, then go to idle.

## CHAPTER 3 HOW TO SET NOTES

### [Precautions for Setting Notes]

- Avoid counting wet, excessively dirty or spoiled notes (See Figures below).
- Check for foreign matter (paper chips, rubber bands, clips, dust, etc.) mixed with notes. Remove any such material.
- Remove folds or curl from notes beforehand.
- Spread and separate brand new notes well, for some of them are slightly adhesive.





### [How to Set Notes]

- Align all the four corners and edges of notes. Any unevenness may cause an error.



## CHAPTER 4 OPERATION

### [Basic Operation]

1. Turn on the Power switch. The machine starts initialization.
2. Press the key to set the MIX, D.D. and CNT mode.
3. Set all default setting by pressing the  +  key.
4. Set notes on the hopper.

5. If Auto start is ON : Machine automatically starts counting.


If Auto start is OFF : Press the  key.

6. Machine will show the amount or pcs. counted on the display.
7. Machine will stop when it reaches a specified batch amount (D.D. or CNT mode).  
If repeat is ON : Machine automatically starts counting after notes are removed from the stacker.

If repeat is OFF : Press the key for additional counting after notes are removed from the stacker.

8. Counting is completed.  
If an ADD mode is set ON, the counted result becomes continuous.  
(Means the result is the summation of the latest counted result and a previous one.)  
If an ADD mode is set OFF, the counted result becomes discrete.  
(Means the result is the latest counted result.)

~~~~~ If optional printer is connected. ~~~~~

9. Press the  key to accept the data counted. (except CNT mode)

Data is kept in memory and prints total date.

※If optional printer is connected, total data is printed out.

10. Press the  and  keys to prints grand total date.

※If optional printer is connected, total data is printed out.

11. Press the  and  keys to clear grand total data.

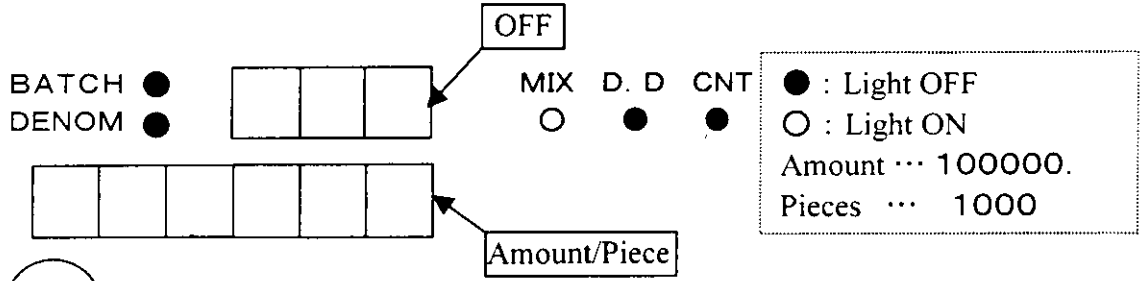
※If optional printer is connected, cleared data is printed out.



**[MIX Mode]**

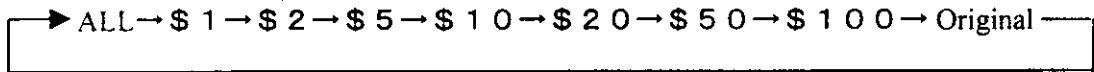
• Machine counts mixed denomination notes and displays the total amount counted.

- ① Put banknotes mixed on a hopper.
- ② A machine counts all kind of US denominations.
- ③ Display total pieces or amount of US denominations



※ **CALL** Counted amount or pieces of each denomination is displayed when pressing this key.

Total amount or pieces of all denominations is displayed at ALL.



**START / STOP** Pressing the key, display returns to idle whatever the display is.

~~ Reject Stacker ~~

Skew, Interval, Double, Counterfeit, Undiscriminated

④ Clear the counted data  
**ADD OFF**  
Whenever next counting starts, previous data is cleared.

**ADD ON**  
Take notes out from the stacker, then press the **C** key.

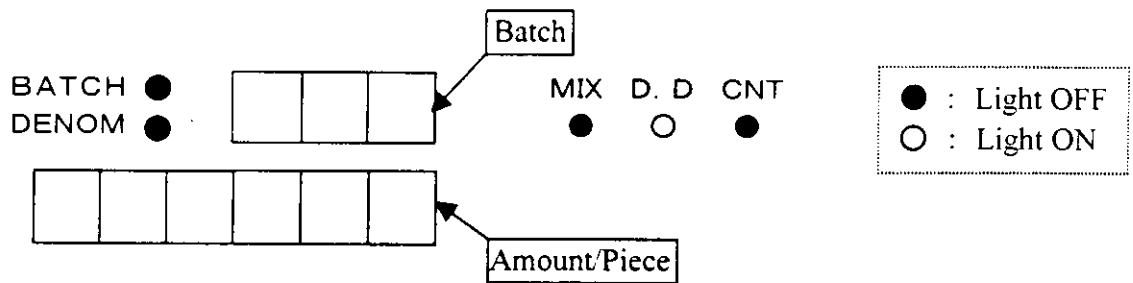
⑤ Accept and add to the total

Press the **PRINT** key, then the amount is added to the total and the display returns to "0".

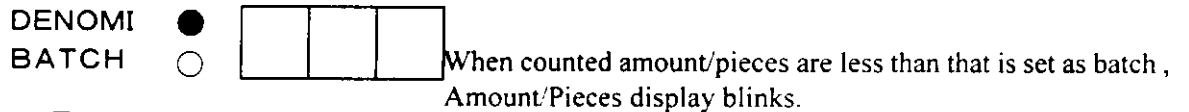
**[D.D. Mode]**

Machine identifies the first note counted and sets its denomination as the standard one. Only notes of that denomination are counted. Any other denominations are rejected without stopping.

- ① Put banknotes mixed on a hopper.
- ② Display amount or pieces of the denomination of the currency counted first. (Denomination to be counted is decided automatically.)
- ③ The banknotes of the denomination counted first are counted; otherwise, rejected.

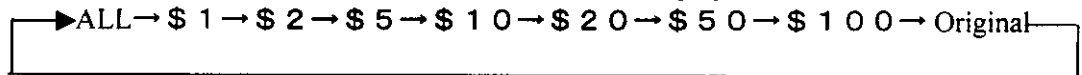


※ When counting with a batch function.



※ **CALL** Counted amount or pieces of each denomination is displayed when pressing this key.

Total amount or pieces of all denominations is displayed at ALL.



**START/STOP** Pressing the key, display returns to idle whatever the display is.

~~ Reject Stacker ~~

Skew, Interval, Double, Counterfeit, Undiscriminated

- ④ Clear the counted data  
**ADD OFF**  
Whenever next counting starts, previous data is cleared.

**ADD ON**  
Take notes out from the stacker, then press the **C** key.

- ⑤ Accept and add to the total

Press the **PRINT** key, then the amount is added to the total and the display returns to "0".

< How to set batch >

Method 1

1) Go to D.D mode.

2) **CALL** By pressing the key, select the denomination to set batch. *no decimal*  
→ ALL → \$ 1 → \$ 2 → \$ 5 → \$ 10 → \$ 20 → \$ 50 → \$ 100 → Original

*if you press Denom after all you reset All*

3) **BATCH** By pressing the key, enable to set batch. (Numbers below are default.)

→ 100 → 5 → 10 → 20 → 25 → 40 → 50 → No batch

OR **PLUS** By pressing the key, enable to set arbitrary batch. (Max. 200 pcs.)

4) **START/STOP** By pressing the key, enable to display batch.

Method 2

1) Go to D.D mode.

2) **CALL** Press the key.

3) **BATCH** By pressing the key, enable to set batch. (Numbers below are default.)

→ 100 → 5 → 10 → 20 → 25 → 40 → 50 → No batch

OR **PLUS** By pressing the key, enable to set arbitrary batch. (Max. 200 pcs.)

4) **CALL** By pressing the key, select the denomination to set batch

→ ALL → \$ 1 → \$ 2 → \$ 5 → \$ 10 → \$ 20 → \$ 50 → \$ 100 → Original

5) **START/STOP** By pressing the key, enable to display batch.

Notice : When the number of the "ALL" batch is set and the number of each denomination batch is set to the number different from it, the number of the "ALL" batch displayed blinks.

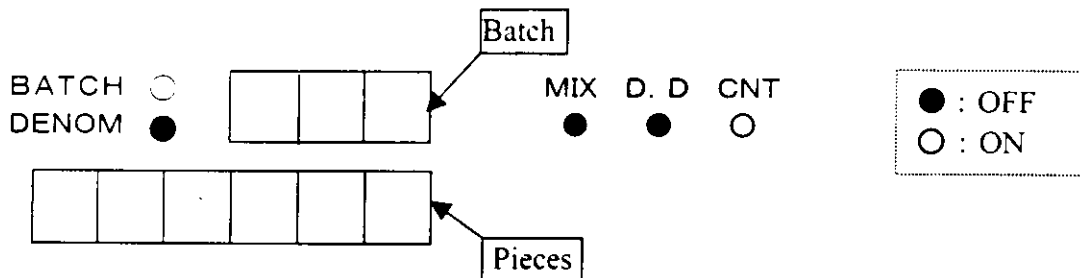
*2nd you can not record batch settings*

*1st*  
*CALL*  
*all*  
*batch*  
*start/stop*  
*change all*

*CALL*  
*Denom*  
*batch*  
*start/stop*  
*change only one Denom*

**[CNT Mode]**

- In this mode, notes are counted without recognizing their denominations.
- ① Put notes on a hopper.
- ② The machine counts them.
- ③ The machine displays total number of currencies.



※In CNT mode, denominations are not discriminated.  
 Any sheets besides US currency might be counted.  
 (Countable size: 62×100~75×160mm (Single size of sheets is preferred.))

~~ Reject Stacker ~~  
 Skew, Interval, Double

<How to set batch >

1) Go to CNT mode.

2) **BATCH** By pressing the key, enable to set batch. (Numbers below are default.)  
 → 1 0 0 → 5 → 1 0 → 2 0 → 2 5 → 4 0 → 5 0 → No batch

OR **PLUS** By pressing the key, enable to set arbitrary batch. (Max. 200 pcs.)

**[Optional functions]**

**=PRINTER INTREFACE=**

- ① Printer (CITIZEN MODELS IPD3540 RS-232 or Compatible model) can be connected to the GFR-S80.
- ② After counting completed, press the **PRINT** key.

The data will be printed and be added to the total.

EX.

Starts from NO.0001 after DATE CLEAR

|              |      |                                       |
|--------------|------|---------------------------------------|
| SEQ-NO. 0001 |      | MIXED                                 |
|              |      | ← Operation mode<br><u>MIX or D.D</u> |
|              | PCS. | AMOUNT                                |
| \$ 1         | 12   | 12. 00                                |
| \$ 20        | 10   | 200. 00                               |
| \$ 100       | 15   | 1, 500. 00                            |
| TOTAL        | 37   | 1, 712. 00                            |

- ③ The grand total can be printed anytime in idle condition by pressing the **#** and **PRINT** keys.

EX.

|             |                          |                                       |
|-------------|--------------------------|---------------------------------------|
| GRAND TOTAL |                          |                                       |
|             |                          | MIXED                                 |
|             |                          | ← Operation mode<br><u>MIX or D.D</u> |
|             | NO. OF TRANSACTIONS 0010 | ← Number of transactions in each mode |
|             | PCS.                     | AMOUNT                                |
| \$ 1        | 250                      | 250. 00                               |
| \$ 5        | 120                      | 600. 00                               |
| \$ 20       | 125                      | 2, 500. 00                            |
| \$ 50       | 30                       | 1, 500. 00                            |
| \$ 100      | 15                       | 1, 500. 00                            |
| TOTAL       | 540                      | 6, 350. 00                            |

- ④ All data can be cleared by pressing the **#** key once and the **C** key twice.
- ⑤ The information is automatically printed out.  
Whenever data is cleared, SEQ.NO. starts from "0".

| GRAND TOTAL CLEAR   |      |                                       |
|---------------------|------|---------------------------------------|
| MIXED               |      |                                       |
| NO. OF TRANSACTIONS | 0010 | ← Number of transactions in MIX mode. |
|                     | PCS. | AMOUNT                                |
| \$ 1                | 250  | 250.00                                |
| \$ 5                | 120  | 600.00                                |
| \$ 20               | 125  | 2,500.00                              |
| \$ 50               | 30   | 1,500.00                              |
| \$ 100              | 15   | 1,500.00                              |
| TOTAL               | 540  | 6,350.00                              |
|                     |      | D. D                                  |
| NO. OF TRANSACTIONS | 0015 | ← Number of transactions in D.D. mode |
|                     | PCS. | AMOUNT                                |
| \$ 1                | 350  | 350.00                                |
| \$ 5                | 250  | 1,250.00                              |
| \$ 20               | 220  | 4,400.00                              |
| \$ 100              | 130  | 13,000.00                             |
| TOTAL               | 950  | 19,000.00                             |

⑥ Other printing

|             |                                  |
|-------------|----------------------------------|
| POWER ON    | ← Printed when machine is ON.    |
| ERROR RESET | ← Printed when error is cleared. |

## [Manual Input Function]

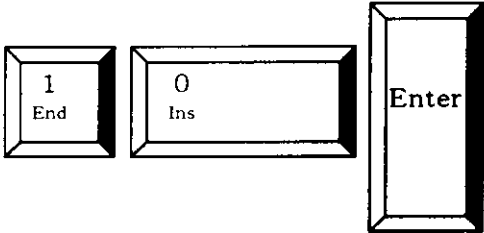
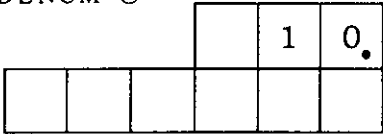
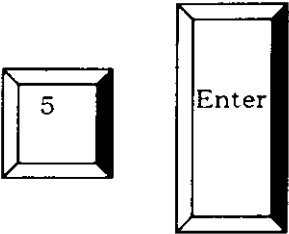

Requirement to use a manual input function

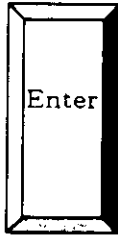
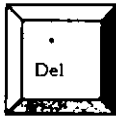
- 1) Mode : Mix mode
- 2) User setting : Printer ON
- 3) Condition : Idle
- 4) Max pieces able to input: 99 pcs. for each denomination

Operation

EX.

After a machine counted \$430(\$100 3pcs., \$20 1pc., \$10 10pcs., \$1 10pcs.), how to input \$10 5pcs. manually.

| Operation                                                                                                                                                                                                                  | Display                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(1) Input amount (-&gt; Disp. 1)</p>                                                                                                  | <p>(Disp. 1) Idle (After input)</p> <p>BATCH ●<br/>DENOM ○</p>  <ul style="list-style-type: none"> <li>• DENOM LED blinks.</li> <li>• The amount is displayed on 3 digit LED.</li> </ul> |
| <p>(2) Input pieces (-&gt; Disp. 2)</p>  <ul style="list-style-type: none"> <li>• Disregarded when "99" or more is inputted.</li> </ul> | <p>(Disp. 2) Idle (After input)</p> <p>BATCH ●<br/>DENOM ○</p>  <ul style="list-style-type: none"> <li>• The piece is displayed on 6 digit LED.</li> <li>• DENOM LED blinks.</li> </ul> |

| Operation                                                                                                                                      | Display                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---|-------|----|------|--------|------|----|-------|-------|-------|--------|---------|---|-------|-------|---|--------|--------|--------------|--------|
| <p>(3) Accept the added input value<br/>(-&gt; Disp. 3)</p>   | <p>(Disp. 3) Idle(After input)</p> <p>BATCH ●<br/>DENOM ●</p> <table border="1" data-bbox="1016 344 1395 474"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td>4</td><td>8</td><td>0.</td> </tr> </table> <ul style="list-style-type: none"> <li>•The total of counted and manually input amt./pcs. is displayed.</li> <li>•The accepted input value is printed out as shown below.</li> </ul> <table border="1" data-bbox="925 700 1466 873"> <tr> <td colspan="3">ENTERED</td> </tr> <tr> <td>\$ 10</td> <td>5</td> <td>50.00</td> </tr> <tr> <td>Denom.</td> <td>Pcs.</td> <td>Amt.</td> </tr> </table> |                |   |       |    |      |        |      |    |       | 4     | 8     | 0.     | ENTERED |   |       | \$ 10 | 5 | 50.00  | Denom. | Pcs.         | Amt.   |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | 4 | 8     | 0. |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| ENTERED                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| \$ 10                                                                                                                                          | 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 50.00          |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| Denom.                                                                                                                                         | Pcs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Amt.           |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| <p>(4) Cancellation of manual input<br/>(-&gt; Disp. 4)</p>  | <p>(Disp. 4) Return to the display before this operation.</p> <p>BATCH ●<br/>DENOM ●</p> <table border="1" data-bbox="1011 1034 1387 1164"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td>4</td><td>3</td><td>0.</td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                     |                |   |       |    |      |        |      |    |       | 4     | 3     | 0.     |         |   |       |       |   |        |        |              |        |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
|                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                | 4 | 3     | 0. |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| <p>(5) Pressing Print key, print the result after the manual input(-&gt; Disp. 5)</p>                                                          | <p>(Disp. 5) Printed result</p> <table border="1" data-bbox="909 1390 1450 1778"> <tr> <td colspan="2">SEQ - NO. 0001</td> <td>MIXED</td> </tr> <tr> <td></td> <td>PCS.</td> <td>AMOUNT</td> </tr> <tr> <td>\$ 1</td> <td>10</td> <td>10.00</td> </tr> <tr> <td>\$ 10</td> <td>15(5)</td> <td>150.00</td> </tr> <tr> <td>\$ 20</td> <td>1</td> <td>20.00</td> </tr> <tr> <td>\$100</td> <td>3</td> <td>300.00</td> </tr> <tr> <td>TOTAL</td> <td><u>29(5)</u></td> <td>480.00</td> </tr> </table> <p>Summation of counted and manually input values.</p>                                                                                                         | SEQ - NO. 0001 |   | MIXED |    | PCS. | AMOUNT | \$ 1 | 10 | 10.00 | \$ 10 | 15(5) | 150.00 | \$ 20   | 1 | 20.00 | \$100 | 3 | 300.00 | TOTAL  | <u>29(5)</u> | 480.00 |
| SEQ - NO. 0001                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | MIXED          |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
|                                                                                                                                                | PCS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AMOUNT         |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| \$ 1                                                                                                                                           | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10.00          |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| \$ 10                                                                                                                                          | 15(5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 150.00         |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| \$ 20                                                                                                                                          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20.00          |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| \$100                                                                                                                                          | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 300.00         |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |
| TOTAL                                                                                                                                          | <u>29(5)</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 480.00         |   |       |    |      |        |      |    |       |       |       |        |         |   |       |       |   |        |        |              |        |



## CHAPTER 5 CLEARING ERRORS

When an error occurs, the corresponding error code will be indicated on the display. Find the cause of the error by the indicated error code, and take necessary measures according to the following procedures:

### [Detail of Guidance Display]

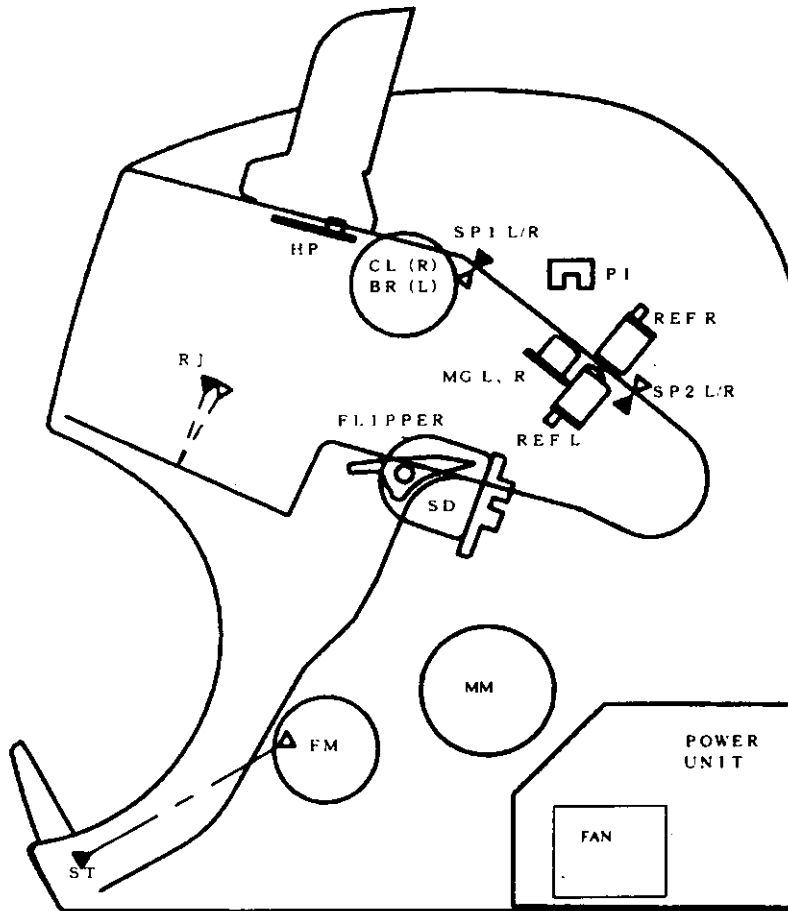
| Display                           | Cause                                                                                                                                            | Procedure for removing cause of error                                                                         |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| CF<br>blinking                    | Suspected notes exist in the reject stacker.                                                                                                     | Remove notes from the reject stacker and check notes.                                                         |
| CF<br>blinking<br>+<br>CF1<br>CF2 | Suspected note(s) exist in the reject stacker.<br><br>CF1 Check the last rejected note.<br>CF2 Check the note just before the last rejected one. | Remove note(s) from the reject stacker. This error occurs only if STOP ON SUSP function is turned ON.         |
| Denomi-<br>nation<br>display      | Display each denomination. ( Not on error )                                                                                                      | Press the <b>START/STOP</b> or <b>CALL</b> key.                                                               |
| BATCH                             | Batch process is completed.<br>(Turn on if batch numbers are set.)                                                                               |                                                                                                               |
| TTL                               | Display total amount of notes. ( Not on error )                                                                                                  | Press the <b>START/STOP</b> or <b>#</b> key.                                                                  |
| HP                                | Feeding malfunction on the hopper.                                                                                                               | Remove all notes from the hopper, set them again and press <b>START/STOP</b> key.                             |
| ST                                | Notes are remaining in the stacker.                                                                                                              | Remove all notes from the stacker.                                                                            |
| RJ<br>+<br>REJECT                 | Rejected notes exist in the reject stacker.                                                                                                      | Remove all notes from the reject stacker.                                                                     |
| FUL<br>+<br>REJECT<br>blinking    | Reject stacker is full.<br>(Over predetermined pieces)                                                                                           | Remove notes from the reject stacker.                                                                         |
| PR                                | Printer is in malfunction or switched OFF.                                                                                                       | Check if the printer power is ON and cable is connected properly. Also, make sure the printer works properly. |

## [Error Code List]

Upon occurrence of an error, the corresponding error code appears on the display. Check the cause according to the indicated error code, and clear the error as instructed below.

| Error code | Contents                        | How to release                                                  |
|------------|---------------------------------|-----------------------------------------------------------------|
| E J 1      | Currency remaining at S P 2     | After removing pieces, press C key.                             |
| E J 2      | Jam at S P 2                    | After removing pieces, press C key.                             |
| E o        | Over counted                    | After removing pieces, press C key.                             |
| E r 1      | Motor rotation malfunction      | After removing pieces, press C key.                             |
| (E r 2)    | Reserved                        |                                                                 |
| E r 3      | S P 1 L sensor adjustment error | Press C key.                                                    |
| E r 4      | S P 1 R sensor adjustment error | Press C key.                                                    |
| E r 5      | S P 2 L sensor adjustment error | Press C key.                                                    |
| E r 6      | S P 2 R sensor adjustment error | Press C key.                                                    |
| E r 7      | Stacker sensor adjustment error | Press C key.                                                    |
| E r 8      | RJ sensor adjustment error      | Press C key.                                                    |
| C L 1      | S P 1 L sensor cleaning         | After cleaning the sensor, press C key.                         |
| C L 2      | S P 1 R sensor cleaning         | After cleaning the sensor, press C key.                         |
| C L 3      | S P 2 L sensor cleaning         | After cleaning the sensor, press C key.                         |
| C L 4      | S P 2 R sensor cleaning         | After cleaning the sensor, press C key.                         |
| C L 5      | Hopper sensor cleaning          | After cleaning the sensor, press C key.                         |
| C L 6      | Stacker sensor cleaning         | After cleaning the sensor, press C key.                         |
| C L 7      | Feed error                      | After putting currency on a hopper again, press START/STOP key. |
| HP (F E d) |                                 |                                                                 |
| P r        | Printer error                   | After checking a printer, press C key.                          |
| n v        | Backup area sum error           | Press C key.                                                    |
|            |                                 |                                                                 |

**[Sensor Location Diagram]**



- SP 1 : Photo sensor
- SP 2 : Photo sensor
- ST : Stacker sensor
- HP : Hopper sensor
- RJ : Reject sensor
- PI : Photo interrupter
- CL : Clutch
- BR : Brake
- REF : REF sensor
- MG : Magnetic sensor
- SD : Solenoid
- MM : Main motor
- FM : Fin motor
- FUN : DC Fan

- ▼ Receiver
- △ Emitter

**[Cover Opening/Closing Methods]**

Open or close the upper cover, rear cover, back cover and lower transfer unit as instructed below.

**[Upper Cover]**

Open: Lift the upper cover to open.

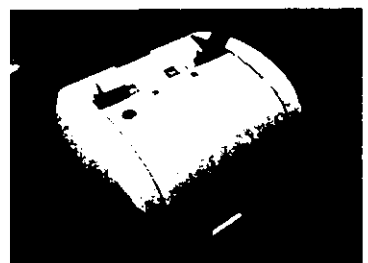
Close: Hold the upper cover and close it slowly.

※Do not open or close the upper cover with an auxiliary hopper plate on.

**[Rear Cover]**

Open: Grasp the lever and open the cover.

Close: Hold the reject block cover and close all the way until a click sound is heard.



**[Back Cover]**

Open: Pull the back cover to open.

Close: Push the back cover to close.

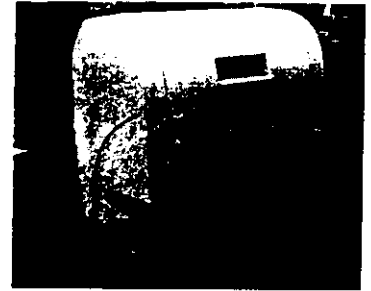


**[Lower transfer unit]**

Open: Open the back cover.

Push down the lever slowly.

Close: Push up the lower transfer unit to lock securely.



**[Removing Jammed Notes]**

When a jam error code appears (blinking) on the display, clear the error using the following procedures.

※Please make sure the cover is closed securely after closing it.

1. Open the upper cover.  
If notes are on the transfer unit, remove them.
2. Open the rear cover.  
If notes are on the transfer unit, remove them.
3. Open the back cover and lower transfer unit.  
If notes are on the transfer unit, remove them.
4. Remove notes from the stacker.
5. Press the key.

## CHAPTER 6 DAILY MAINTENANCE

This machine uses highly sensitive, and sophisticated sensors for note recognition. Contamination by dirt, dust or foreign matter can adversely affect the results.

Clean the items listed below once a day using the accessory tools (after turning off the power).

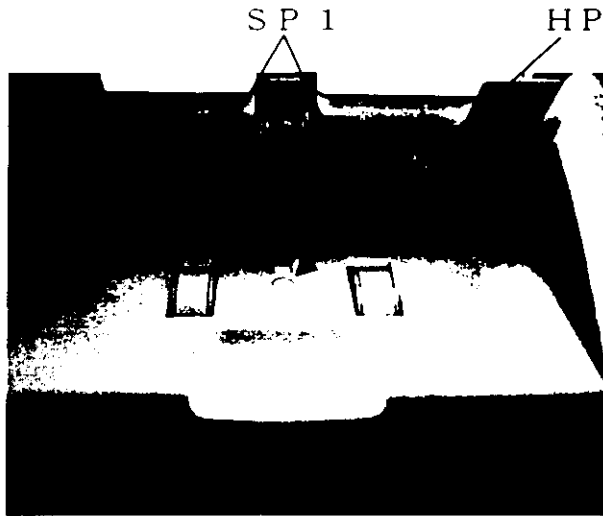


Fig. 1

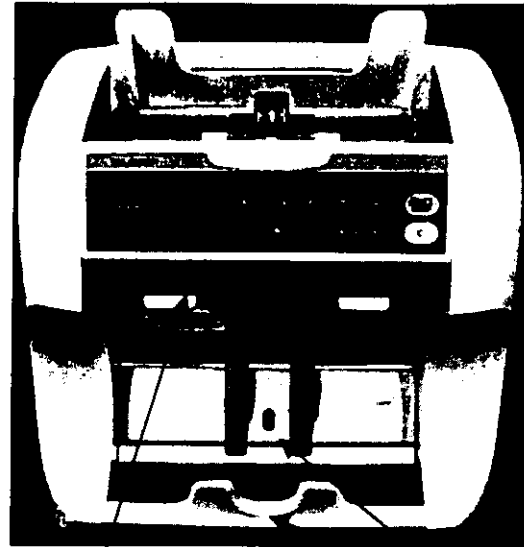


Fig. 2

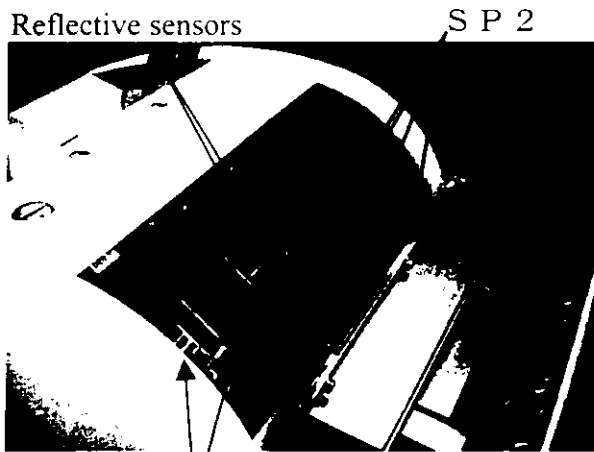


Fig. 3

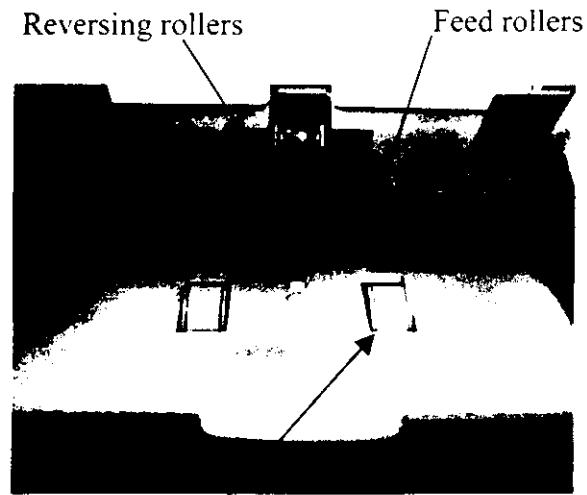


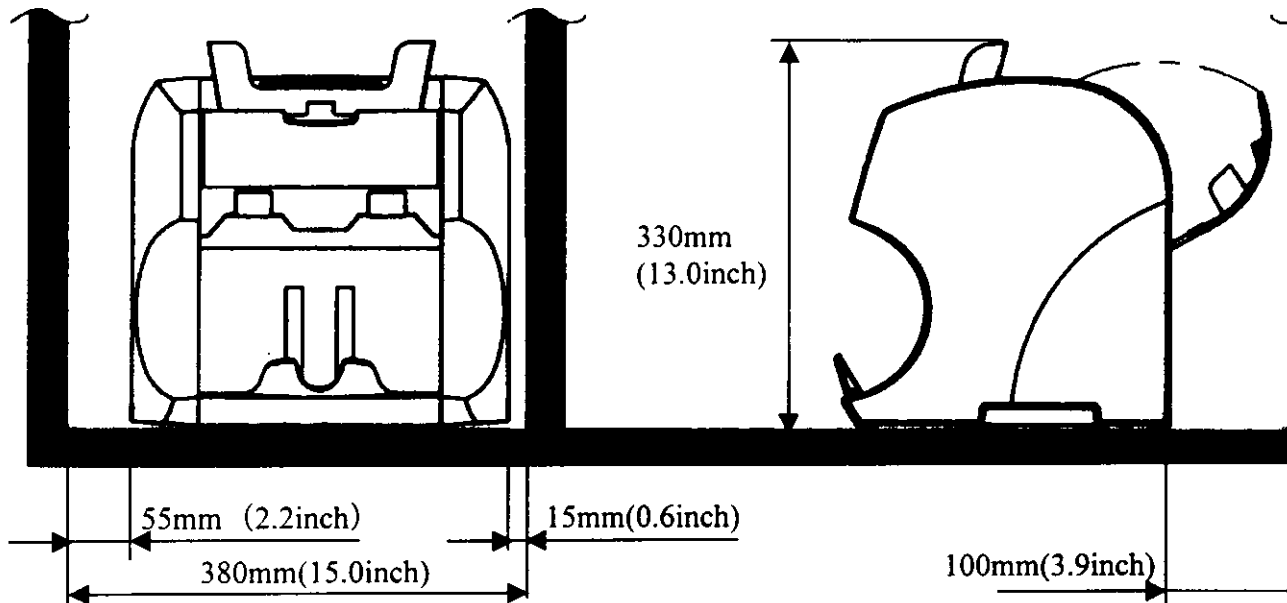
Fig. 4

## CHAPTER 7 SPECIFICATIONS

- External dimensions: Without auxiliary hopper plate: 310(W) × 275(D) × 295(H) mm  
With auxiliary hopper plate : 310(W) × 330(D) × 295(H) mm
- Weight: Approx. 12 kg
- Counting rate: 1000 notes/min
- Applicable notes: MIX sort • MIX • D.D : US\$ currencies  
(\$1,2,5,10, 20, New 20,50, New50,100, New 100)  
CNT : 62 × 100 ~ 75 × 160 mm sheets
- Feed-out method: Roller friction type
- Hopper capacity: Approx. 300 notes
- Stacker capacity: Approx. 200 notes
- Reject stacker capacity: Approx. 20 notes
- Power requirements: Rated voltage: AC120V ± 10%  
Frequency : 60 Hz
- Power consumption: In operation : 1.2A  
Stand-by : 0.4A
- Ambient conditions: Temperature : 0°C to 35°C  
Humidity : 20% to 90% RH
- Optional function: Ten key pad for manual input :  
Manual input by PS/2 compatible ten keypad  
(Available only when a printer is connected.)  
Printer interface : Citizen IDP3540 F40RF120-IB  
(RS232C) Or its compatible  
PC interface : I/F to PC terminal via RS232C  
(RS232C)

## CHAPTER 8 MACHINE INSTALLATION

Ensure necessary space as shown below when installing the machine.



## CHAPTER 9 ACCESSORIES

|                  |   |
|------------------|---|
| Silicone cloth   | 1 |
| Cover            | 1 |
| Brush            | 1 |
| Power cable      | 1 |
| Operation Manual | 1 |

**GFR-S80**  
Instruction Manual VOL. 1  
December 1 1999  
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