Important Safety Information

Always be careful when using the machine. To reduce the risk of fire, electrical shocks, and other injuries, keep these safety considerations in mind when installing, using, and maintaining your machine:

Stability: Place the machine on a secure, stable surface. The machine can be seriously damaged if it falls.

Power Supply: Provide correct power to the machine, as listed on the back of the machine. If you are not sure of the type of power that is supplied to your office, call your electric company.

Grounding: If the plug has three prongs, it must be plugged into a grounded (three hole) outlet. Grounded plugs and outlets are designed for your safety - do not try to make a three-prong plug fit into a two-prong outlet by modifying the plug or outlet in any way. If you cannot insert the plug into your wall outlet easily, then a qualified electrician should inspect the outlet.

Overload: Do not plug too many electrical devices into a wall outlet or an extension cord. An overloaded outlet could be a reason of a fire and electrical shock hazard.

Cleaning: Before cleaning the machine, unplug it from the power outlet. Clean exposed parts with a soft cloth slightly dampened with water. Do not use aerosol cleaners.

Gas Leaks: Never use any machine close to a gas leak. If you think gas is leaking, call the gas company immediately. A small electrical spark in the machine could cause a fire or explosion.

Precaution

When using the machine, these precautions should always be followed:

1. Never push objects of any kind into your machine through the case or cabinet openings.

2. Do not use your machine near water, in wet locations, or outdoors.

3. Do not allow anything to rest on the power cord, line cord, or PC interface cable. Do not locate your machine where the cords can be damaged by persons' walking on them.

4. Do not allow pets to chew on the power cord or PC interface cable.

5. Use supplies or cleaning materials only as directed. Keep all supplies and materials out of the way of children.

6. The power supply turns this machine on and off. Make sure that your machine is installed near an outlet and is easily accessible.

7. Never remove covers or guards that require a tool for removal. There are no operator serviceable areas inside your machine. Refer servicing to authorized service personnel.

8. Never defeats interlock switches. This machine is designed to restrict operator access to unsafe areas. Covers, guards and interlock switches are provided to ensure that the machine will not operate with covers opened.

9. Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instruction.

Managing the performance of the machine

This unit has many sophisticated sensors. Without proper maintenance, it cannot last its good performance.

Please read the "Daily Maintenance" section of this manual carefully, and do it everyday. When the performance

is deteriorated on a sudden, please clean all the sensors first before calling a service.

Safety Notes

Your machine and the supplies are designed and tested to
meet strict safety requirements. Included are safety agency
examination and approval and compliance to established
environmental standards. Please read the following
instructions carefully before operating your machine, and refer
to them as needed to ensure the continued safe operation of your machine.

WARNING
Hazardous moving parts!
Keep fingers and other body parts away

Battery is used for 'PBA POWERIO' in this
machine. If wrong date and time are
displayed on LCD after correct setting, it is
necessary to change the battery of 'PBA
POWERIO'. Please read the following instructions carefully before changing the battery.

CAUTION
Risk of explosion: if battery is replaced by an incorrect type.
Dispose of used batteries according to the instructions.

Table of Contents

1　Installation

Unpacking List

1.	SB-9 Counter	1 Unit
2.	Bill Guide	2 pcs.
3.	AC Power Code	1 pc.
4.	SB-9 User's Manual	1 pc.
5.	Serial Cable	1 pc.

* Optional Items: Printer, Serial to USB A Cable, USB A to USB B Cable

Choosing a Location

To help guarantee trouble-free operation of your machine, place it on a flat, stable surface near your workstation.

Do not place your machine:

- In direct sunlight.
- Near heat sources or air conditioners.
- In dusty or dirty environments.

Handling the Machine

When handling or moving the machine, do not lift with grasping the Reject Pocket. The picture shows how to lift the machine correctly. Please refer to the pictures on the next page.
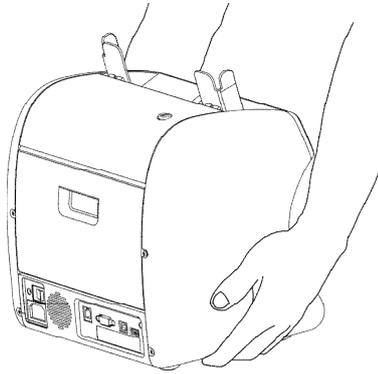
(X)

(X)

(O) Correct way to lift the machine

Setting Up Your Machine

Power Cord

Plug one end of the cord into the back of the machine and the other

end into a standard AC power outlet.

If you turn on the power switch, the machine will display version and
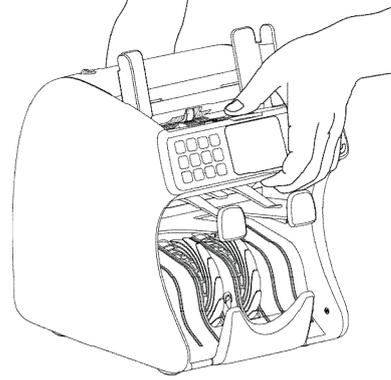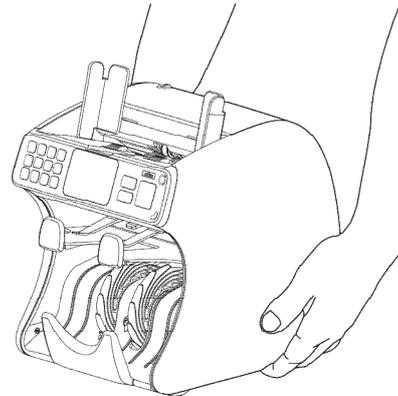
checksum. If there is Service Call number saved by a service

provider, the Call number will be displayed.

```
VERSION  01. 00

CHECKSUM  OK
OC28

A/S NO.
321-7654-9876

                          SB-9
```

Printer

Your SB-9 has a serial interface port, which allows you to connect the printer to print out counting result. To

connect the printer to the machine, follow the steps below:

1. Make sure that both the SB-9 and the printer are turned off.

2. Plug the cable of printer into the serial port of SB-9.

3. Turn on the printer and SB-9.

CAUTION

In case that another port is used to avoid

electrical shock, turn off SB-9 and turn on

the machine after Port is connected.

.

---

2 | Description of the Parts

① Front Cover

② Hopper
③ Pocket LED
④ LCD & Control Panel
⑤ Reject Pocket

⑥ Stacker

⑦ Currency Gate Adjustment Screw

⑧ Rear Cover Open Handle

⑨ Power Switch
⑩ AC Inlet
⑪ RJ11
⑫ Lan Port

⑬ RS232C

⑭ USB B ⑮ USB A
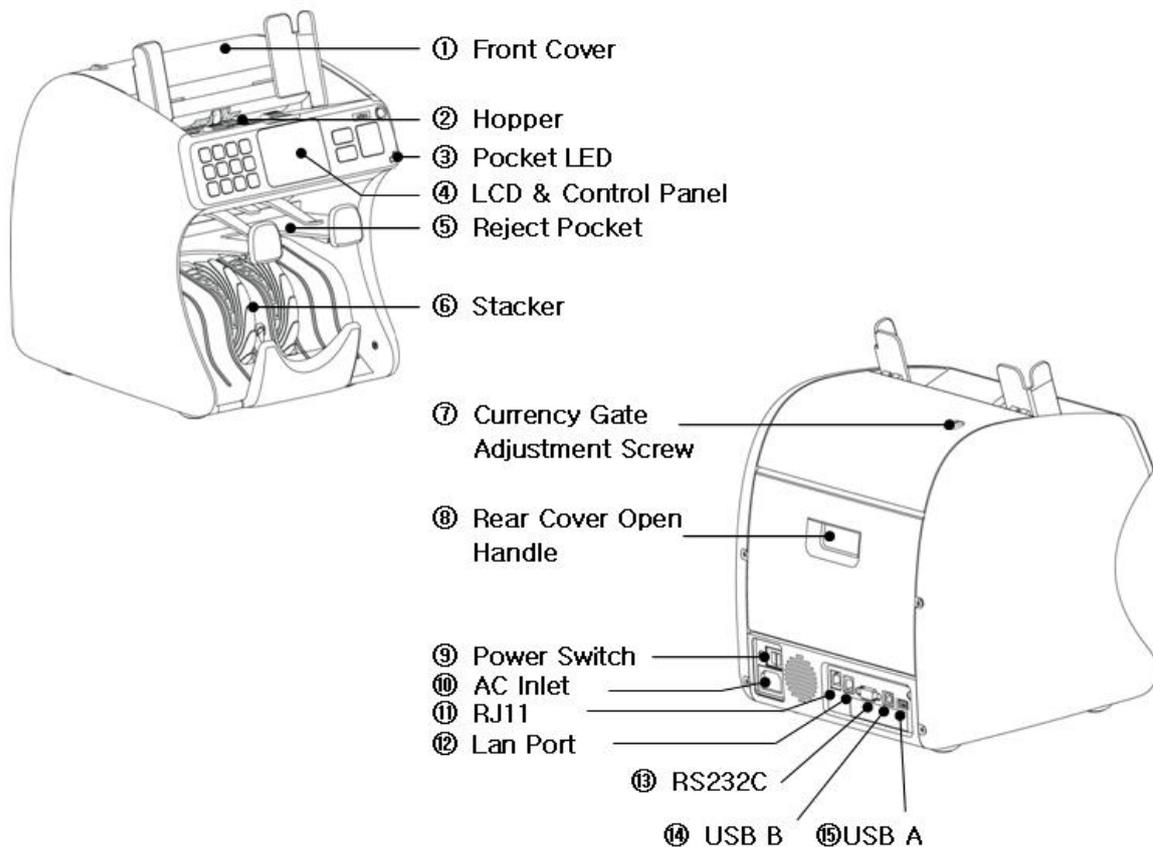
3 | Overview of Control Panel

$ ←→ €	Select Currency	**▲**	Up
ADD	Accumulated Count On/Off	**▼**	Down
CF	Counterfeit Detector On/Off	**MODE**	Change Mode (Ch. 6)
BATCH	Batch function On/Off	**DISPLAY**	Change Display Mode (Ch. 4)
DENOM.	Select a denomination	**START/ENTER**	Counting Start (manual mode) /
5 (START)	In dual user mode:		Enter /Stop key /
	Counting Start (manual mode) /		Transmit data or Print(In dual user mode)
	Stop key / Transmit data or Print	**C**	Clear Errors / Cancel Input
PRINT	Printing the Count	**Pocket LED**	If some notes remain on the
GT	Grand Total Display		Reject pocket, this LED will be lit.
Menu	Change settings or parameters		
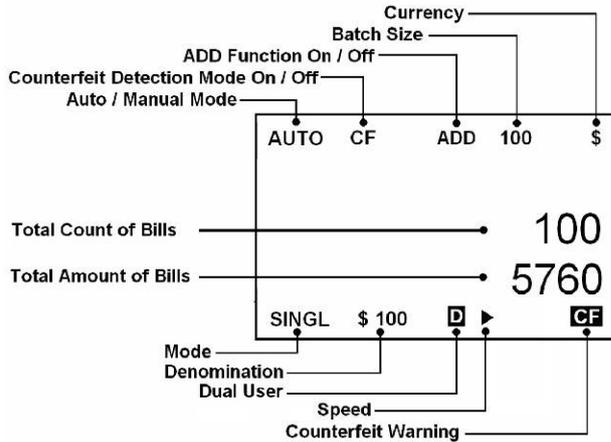
Amount Display (Simple View)

Currency
Batch Size
ADD Function On / Off
Counterfeit Detection Mode On / Off
Auto / Manual Mode

AUTO   CF   ADD   100 $

Total Count of Bills — 100
Total Amount of Bills — 5760

SINGL $ 100   D ▶   CF

Mode
Denomination
Dual User
Speed
Counterfeit Warning

AUTO   CF   ADD   100 $

Count of Bill in Stacker — S :   100
Total Count of Bills — T :   100
Amount of Bills in Stacker — S$ 5760
Total Amount of Bills — T$ 5760

SINGL $ 100   ▶   CF

Amount Display (Detail View)

5   Getting Started … (Simple Counting)

Placing Bills into the Hopper

It is very important to place the bills into the hopper correctly because recognition performance of the bills is highly affected by the arrangement of the bills. And the number of the rejected bills can be increased when they are not arranged and placed correctly. Refer to the pictures below for the correct placement of the bills.
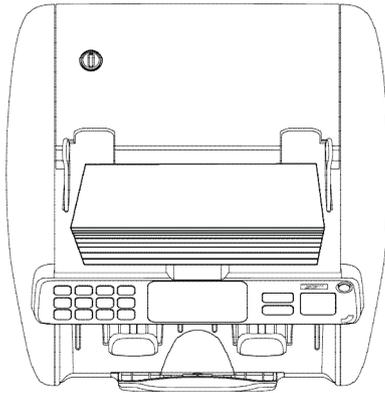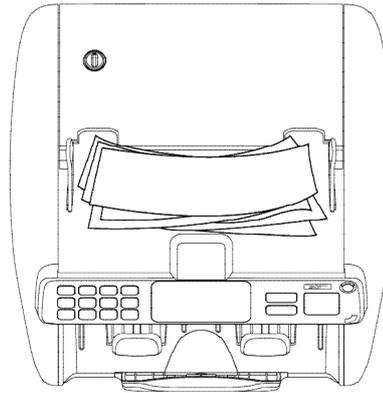
Good   **Bad**

Please avoid counting bills like wet, excessively dirty, spoiled, folded, curled notes and with foreign material like clips, bands, etc. Sometimes it causes malfunction of the machine.

Counting

In AUTO mode, the machine starts to count the bill automatically as it detects the existence of the bill in the hopper. In MANUAL mode, the machine will start to count the bill only if the bills are placed into the hopper and START key is pressed. While counting, the machine will display the number of the bills on LCD display and it stops working when it meets the conditions described as below;

- No bills in the hopper
- Stacker is full.
- Rejecter is full.
- The number of the bills counted is the same as the batch number to be set in BATCH mode.
- Errors have occurred.

If an error is occurred during operation and the machine stops, then an error message will be displayed. To clear the error, press CLEAR key. The machine will try to solve the problem automatically, but if it fails to clear a jam or there are some other mechanical errors, open the front or rear cover and get rid of jammed bills and close the cover correctly. Then press the CLEAR key again to clear error message.

STOP during OPERATION

Press START button to stop operation while the machine is counting.

To restart, press CLEAR button.

Selecting Counter Mode

There are three counting modes; COUNT, MIXED, and SINGLE modes.

The modes are changed in sequence as shown below every time when the MODE key is pressed;

MIXED → SINGL → COUNT

■ **Mixed mode (MIXED mode)**

In Mixed mode, the machine counts and discriminates the

denominations of the bank notes. If the denomination of a bank note is

successfully discriminated, then the note will be sent to the output

stacker. If a note fails to be detected or it is a suspect note (if CF is ON),

the note will be sent to the reject pocket.

To change into the MIXED mode, press MODE key until "MIXED" is

displayed on LCD.

AUTO	CF	100	$

MIXED   ▶
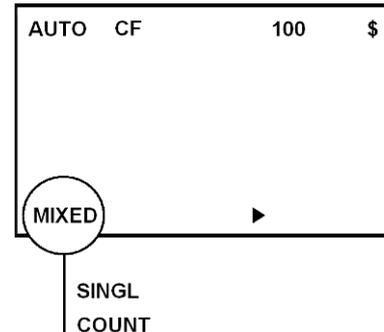
SINGL
COUNT

■ **Single mode (SINGL mode)**

In Single mode, the machine sorts out notes whose denomination is the same as a selected denomination. The

other notes whose denomination is not matched will be sent to the reject pocket. To select a denomination,

press DENOM key. The denomination will be displayed in LCD. For example in case of US dollar, every time DENOM key is pressed, the denomination will be changed sequentially:

<div style="text-align:right">

| AUTO	CF	100	$
SINGL	$ 100	▶	

Pre-set Denomination

</div>

D.D -> $1 -> $2 -> $5 -> $10 -> $20 -> $50 -> $100 -> D.D

D.D is an abbreviation of "Detected Denomination". If D.D is selected, the machine detects the denomination of the first note and sets it to the selected denomination. Once a denomination is selected by D.D, it cannot be changed while the Input Hopper or the output stacker contains notes. If the output stacker and the input Hopper are emptied, the machine will try to find a new denomination of the first note in next trial and sorts the notes with the new denomination.
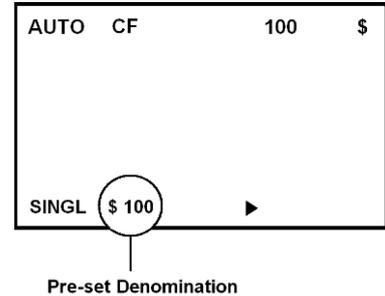
■ FACE mode

A banknote has 2 faces, front face and rear face. If front and rear face banknotes of a denomination are mixed the machine can sort front face to Stacker and rear face to Reject pocket.

Pressing the Display key you can find the "Stay Note" as the reject reason.

■ ORIENT mode

The face of a banknote has 2 orientation, Up and Down. After you sort front face and rear face of a banknote

bundle you can also get the sole orientation of a banknote bundle with this mode. The banknote bundle arranged to one face by now can be sorted Up to Stacker and Down to Reject pocket.

In this time you can also find "Stay Note" as the reject reason pressing the Display key.

■ Count mode (COUNT mode)

In Count mode, the machine only counts the bank notes without discriminating a denomination.

To change into the simple counting mode, press MODE key until "COUNT" is displayed on LCD

CF Detector On/Off

To turn on/off CF detector, press CF key. If "CF" appears on LCD, then it means the detector is activated.

If a note is determined as a counterfeit, CF sign will be lit on LCD as the figure like below and the note will be sent to the Reject Pocket. The machine will beep warning sound if the counting job is finished. The sign will be cleared automatically when the Reject Pocket is emptied.

ON
OFF

AUTO	CF		100	$
MIXED		▶		

AUTO	CF		100	$
S :				100
T :				100
S$				5760
T$				5760
MIXED		▶		CF

Counterfeit Warning Sign
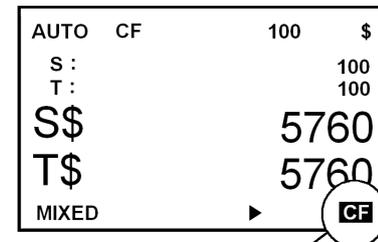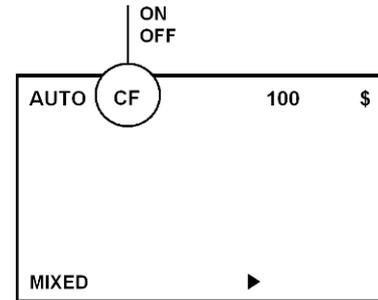
ADD On/Off

To turn on/off ADD function, press ADD key.

ADD function enables to do a cumulative count. For example, if ADD is on, the counting result is not cleared but added to the next counting result. It is useful function when an operator wants to counter a lot of cash.

BATCH On/Off

To turn on/off BATCH function, press BATCH key. Once turned on, you have to input batch size using keypad and then press START button to enter. In the batch mode, the machine stops counting when the the number of counted bills reaches the batch setting even though the bills still remain in the Input Hopper.

To deactivate the batch mode, simply press BATCH key, confirming that the batch size displayed on LCD is disappeared.

Changing Display Contents

The machine provides various information regarding counting results. Every time pressing DISPLAY key, the display mode is changed sequentially. There are 5 views:

- Piece Display (Simple View) in count mode or while the machine counting.
- Simple View (Amount & piece Display)
- Detail View (Amount & piece Display)
- Piece View (Detail)
- Reject Reason view.

Below are some examples of each Display mode.

AUTO	CF	100	$
		100	
		5760	
MIXED	▶		
	SB-9		

Simple View (Amount & piece Display)

AUTO	ADD	100	$
R			0
S			0
T			0
COUNT	▶▶▶		
	SB-9		
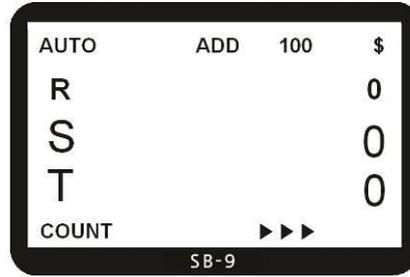
Piece Display only in Count Mode

AUTO	CF	100	$
S :			100
T :			100
S$			5760
T$			5760
MIXED	▶		
	SB-9		
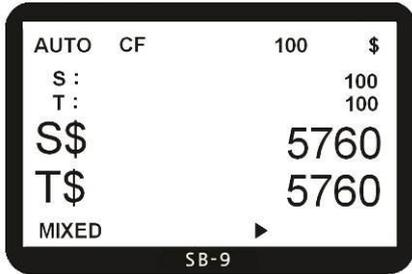
Detail View (Amount Display & piece Display)

TOTAL	:	5760
STACKER	:	100
REJECT	:	4
$ 1	:	0
$ 2	:	0
$ 5	:	10
$ 10	:	23
$ 20	:	9
$ 50	:	10
$100	:	48
	SB-9	
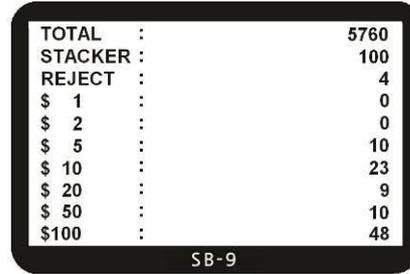
Piece View (Detail)

In the last example, the picture shows the reasons of the rejected notes; the first note was rejected by the reason of NO I.D and the second note was rejected by the reason of SUSPECT, etc.

REJECT REASON
1 : NO ID
2 : CF
3 : OVERRUN
4 : NO READ

SB-9
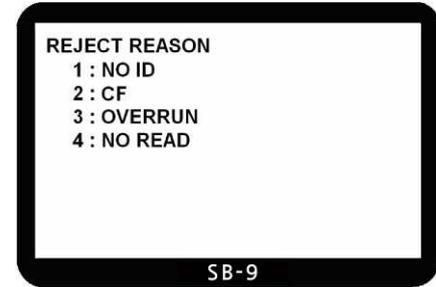
Reject Reason View

SUMMARY of the REJECT REASONS	
NO I.D.	: The machine failed to identify the denomination.
NO READ	: The note was not successfully read.
OVERRUN	: The next note was fed too close to the first note.
CF	: The note was suspected to be a counterfeit.
STAY NOTE	: The note was not fit to the condition of sorting.
DOUBLE	: More than two pieces of notes were fed into machine
CHAIN	: Chain Error
HALF	: Half Error

CAUTION

If the reject reason is Chain or Half, the number of the reject note displayed on LCD can be different with the actual number of notes in the reject pocket.

Grand Total

Grand Total is a total of printed counting amount. When you start printing the counting result by pressing PRINT key, then the value is added to Grand total and automatically the machine displays the number of deposit and G TOTAL. Even though a printer is not connected, this operation will be done because SB-9 does not check whether a printer is connected or not.

```
DEPOSIT
                               1789
G  TOTAL
                         912650230
                SB-9
```

Grand Total View

The grand total is managed separately in MIXED and SINGL mode, namely there are two grand totals. You can see only one grand total at a time: for example in SINGL mode the display will show only grand total for SINGL.

If you want to check the grand total, press GT key. And you can check detail by pressing DISPLAY key as shown below pictures. Only in this display mode the operator can clear grand total by pressing CLEAR key. If the grand total is cleared, the printing sequence number is automatically reset to "1".

```
GRAND TOTAL :                    0
 $   1    :                    295
 $   2    :                      0
 $   5    :                   1631
 $  10    :                    680
 $  20    :                  11855
 $  50    :                  12963
 $100    :                     613
                SB-9
```

Grand Total Detail View

To exit from the grand total display mode, just press GT or just start another counting job.

Selecting Currency

The machine can work for several currencies if optional software is purchased. To change currency, press Currency (**$ ←→ €**) key. If you need to purchase more softwares to handle different currencies, please consult with your dealer .

Dual User

Two users can share one unit of SB-9 at the same time. To activate Dual User Mode, turn it on in [MENU] → [4. Settings] → [7. Dual User]   In this mode, PRINT key is not working but the numeric 5 ("START") and START key replaces the PRINT key. User1 have to use 5(START) key to print out his/her counting result and User2 should use START key to print out his/her counting result. And both users can designate different station IDs

(See submenu "Parameter" in Section. 7).

In this menu, two users cannot use different options for MODE, CURRENCY, BATCH, CF. But for ADD function, one user can activate it, but once START key is pressed to print out, then ADD function is automatically turned off.

In Dual User mode, different ports configuration is used:

'Dual User' Setting	Communication port in SB-9		Remark
	RS232C	USB B	
1. Dual User off (It means Single User)	Printer *1)	PC	*1) *2) To print or Transmit data to PC, press PRINT key
	PC *2)	-	
2. Dual User On	PC (User2) *3)	PC (User1) *4)	To transmit data to PC *3) User2 has to use 'START' key *4) User1 has to use numeric '5' key

(See submenu "Dual User" in Section 7)

Set 'MENU' and its Parameters

USER MENU

To set a function and its parameters, at first move to USER MENU by pressing MENU key. After pressing 'MENU' key, you can see the Display as shown below.

```
USER MENU
1. SPEED
2. CONTRAST OF NOTE
3. POCKET CAPACITY
4. SETTINGS
5. PC INTERFACE
6. SENSITIVITY SETTING
7. PARAMETER
8. RESERVED
              SB-9
```

To move to a menu item, press UP/DOWN key. Then press START key to enter. Or you can directly move to a menu by just pressing a numeric key. For example, to move to the "SETTINGS" menu, just press numeric "4" key. To escape from the menu completely, press CLEAR/ESC key or to move to higher level of menu item, press MENU key again in sub menu mode.

The factory default settings are like below;

Function/Parameter	Default Value
Speed	1000 NPM
Contrast of Note	Normal
Beep	On

Auto Start		On
Mode Lock		Off
Pocket Capacity	Reject Pocket	50 notes
	Stacker	100
Interface	Baud	57600
	Data	8
	Stop	1
	Parity	None

Set Speed of the machine

From the Function Main Menu, select the "SPEED".

The machine offers three speeds; 1000 / 1200 / 1500 NPM

(Notes per Minute). In sub menu, press a numeric key to

select a speed or you can select using UP/DOWN key and

START key. In COUNT mode, you can set the speed up to

1500NPM but in SINGL or MIXED modes, the machine

```
USER  MENU
1. SPEED ————————————  1. 1000 NPM
2. CONTRAST OF NOTE      2. 1200 NPM
3. POCKET CAPACITY       3. 1500 NPM
4. SETTINGS
5. PC INTERFACE
6. SENSITIVITY SETTING
7. PARAMETER
8. RESERVED
```

works with maximum 1200 NPM. Please refer to the below table to see the compulsory maximum speed for

each condition.

Mode	Compulsory Maximum Speed
COUNT	1500 NPM
MXED / SINGL	CF ON: 1000NPM
	CF OFF: 1200 NPM

Set Contrast of Banknotes

This menu decides the contrast of bank notes to be counted. The machine refers to this parameter when it checks for a double feeding error. If the machine cannot detect double feeding error well, then set "Contrast" to lighter level, on the contrary if the machine detects double even though actually notes are not double fed, then set "Contrast" to darker level.

```
USER  MENU
1. SPEED
2. CONTRAST OF NOTE ──────────   1. DARK
3. POCKET CAPACITY               2. NORMAL
4. SETTINGS                      3. LIGHT
5. PC INTERFACE
6. SENSITIVITY SETTING
7. PARAMETER
8. RESERVED
```

To set a level, move to that level using UP/DOWN key. Then press START key to enter or directly press a numeric key.
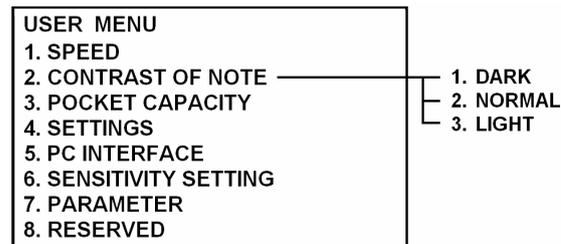
Set Pocket Capacity

The capacity of the Reject Pocket and the Stacker Pocket is changeable using this function. If a user normally processes good quality notes, then the capacity of

```
USER  MENU
1. SPEED
2. CONTRAST OF NOTE
3. POCKET CAPACITY ──────┐      1. REJECT POCKET ──┬─ 1.  30 NOTES
4. SETTINGS                              ├─ 2.  20 NOTES
5. PC INTERFACE                          └─ 3.  10 NOTES
6. SENSITIVITY SETTING
7. PARAMETER              2. STACKING POCKET ──┬─ 1. 200 NOTES
8. RESERVED                                    ├─ 2. 150 NOTES
                                               └─ 3. 100 NOTES
```
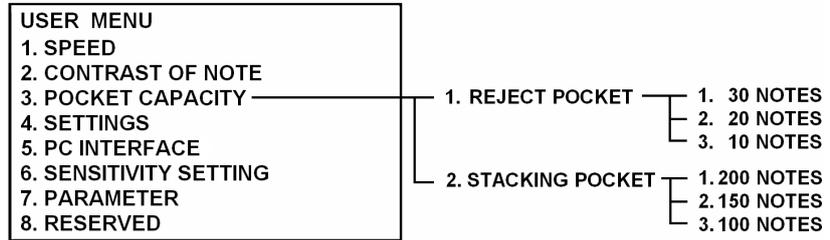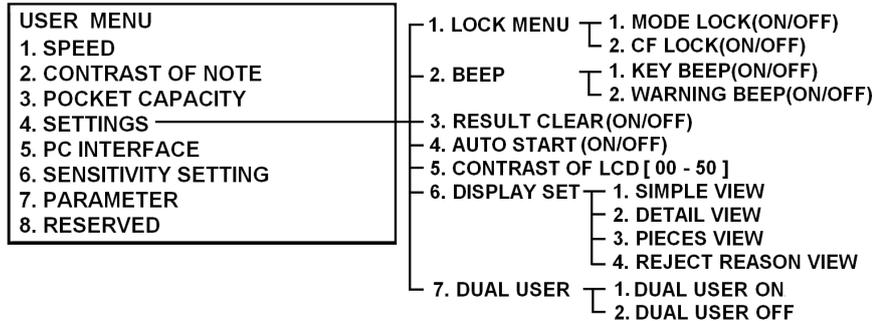
the Reject Pocket and the Stacking Pocket can be set to higher capacity, otherwise the value should be set to minimum 10 notes for the Reject Pocket and 100 notes for the Stacking Pocket. To set to a value, moves to a level using UP/DOWN key then press START key to enter or directly press a numeric key.

Settings

```
USER  MENU
1. SPEED
2. CONTRAST OF NOTE        ┌ 1. LOCK MENU ─┬ 1. MODE LOCK(ON/OFF)
3. POCKET CAPACITY         │               └ 2. CF LOCK(ON/OFF)
4. SETTINGS ───────────────┤ 2. BEEP ──────┬ 1. KEY BEEP(ON/OFF)
5. PC INTERFACE            │               └ 2. WARNING BEEP(ON/OFF)
6. SENSITIVITY SETTING     ├ 3. RESULT CLEAR (ON/OFF)
7. PARAMETER               ├ 4. AUTO START (ON/OFF)
8. RESERVED                ├ 5. CONTRAST OF LCD [ 00 - 50 ]
                           ├ 6. DISPLAY SET ─┬ 1. SIMPLE VIEW
                           │                 ├ 2. DETAIL VIEW
                           │                 ├ 3. PIECES VIEW
                           │                 └ 4. REJECT REASON VIEW
                           └ 7. DUAL USER ─┬ 1. DUAL USER ON
                                           └ 2. DUAL USER OFF
```

1. LOCK MENU

To prevent from changing modes unintentionally, you can disable the MODE key by setting this function to on in LOCK_MENU. To change a mode, at first make the Mode Lock function OFF. To set to an ON/OFF, moves to a level using UP/DOWN key then press START key to enter or directly press a numeric key.

To prevent from changing CF function unintentionally, you can disable the CF key by setting this function to on in LOCK_MENU. While this function is ON, the CF key cannot work. To set to ON/OFF, moves to a level using UP/DOWN key then press START key to enter or directly press a numeric key.

2. BEEP

If beep function is set to "ON", an audible beep tone will be generated when a key is pressed, otherwise it will not be generated. To set to ON/OFF, moves to a level using UP/DOWN key then press START key to enter or directly press a numeric key.

3. RESULT CLEAR

If 'Result Clear' is turned On, counted value displayed on the external display (provided as an option) is automatically cleared after 10 seconds

To set to ON/OFF, moves to a level using UP/DOWN key then press START key to enter or directly press a numeric key.

4. AUTO START

If the Auto function is turned ON, the machine starts to count automatically

when detecting a note on the hopper. Whereas in Manual mode, the

machine starts to count after a note is placed in the Hopper and

START/ENTER is pressed.

This mode is displayed on LCD like below:

To change the mode, move to "AUTO START" and press ENTER key or

directly press the numeric "4" key. And then select an option in the sub

menu. If "AUTO START ON" is selected, the Display will show "AUTO", else "MAN".

```
AUTO
MAN.

 AUTO    CF            100        $




MIXED                 ▶
```
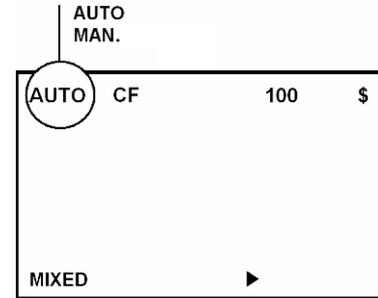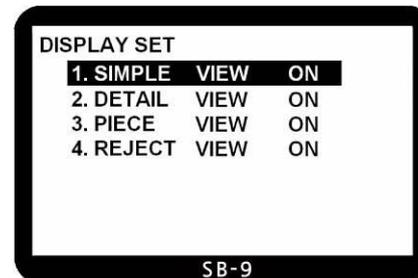
5. CONTRAST OF LCD

When the contrast of LCD display is too dark or too bright, user can change the contrast level using UP/DOWN

key then press START key to enter.

6. DISPLAY SET

User can select preferable view among 4 kinds of view.

Using UP/DOWN key, you can move to preferable view and press

"START" key.

At least, one between '1.Simple view' and '2.Detail view' should be

```
DISPLAY SET
1. SIMPLE   VIEW    ON
2. DETAIL   VIEW    ON
3. PIECE    VIEW    ON
4. REJECT   VIEW    ON



          SB-9
```

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selected.

(Refer to submenu "Changing Display Contents" in Section. 6. Basic Operation)

7. DUAL USER

To share the machine with another user, select one of configurations in this menu items. To cancel 'Dual User' option, turn "Dual User" off.

Dual User Off

This is for single user. In this configuration, RS232C port is used to connect PC or a printer. USB B port can be used only to connect PC.
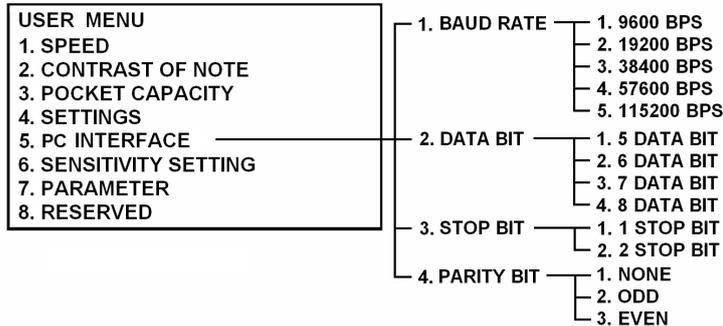
Dual User On

This is for Dual User. The users can connect their PCs to RS232C port (User1's PC) and USB B (User2's PC).

To send the counting results to correct PC, the users have to use different print key, that is, START key for User1 and numeric '5' (START) key for User2.
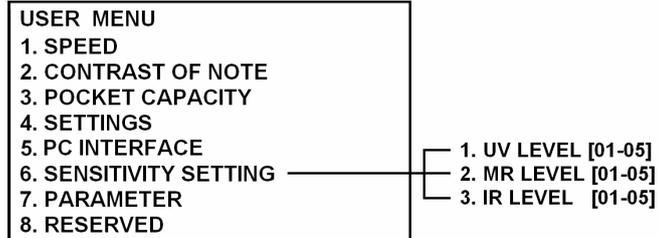

(See submenu "Dual User" in Section. 6. Basic Operation)

PC Interface

```
USER  MENU                          ┌ 1. BAUD RATE ─┬ 1. 9600 BPS
1. SPEED                            │               ├ 2. 19200 BPS
2. CONTRAST OF NOTE                 │               ├ 3. 38400 BPS
3. POCKET CAPACITY                  │               ├ 4. 57600 BPS
4. SETTINGS                         │               └ 5. 115200 BPS
5. PC INTERFACE  ───────────────────┤ 2. DATA BIT ──┬ 1. 5 DATA BIT
6. SENSITIVITY SETTING              │               ├ 2. 6 DATA BIT
7. PARAMETER                        │               ├ 3. 7 DATA BIT
8. RESERVED                         │               └ 4. 8 DATA BIT
                                    ├ 3. STOP BIT ──┬ 1. 1 STOP BIT
                                    │               └ 2. 2 STOP BIT
                                    └ 4. PARITY BIT ┬ 1. NONE
                                                    ├ 2. ODD
                                                    └ 3. EVEN
```
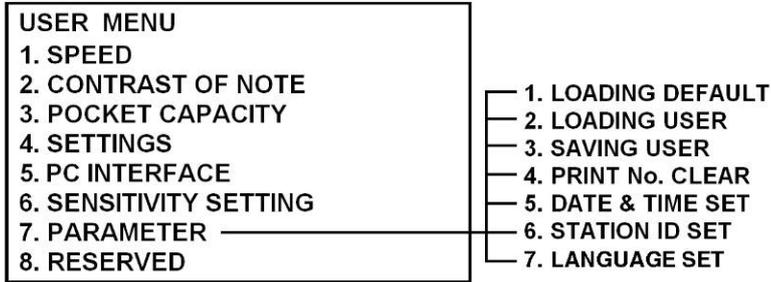
Sensitivity Setting

User can adjust the sensitivity of UV sensor, Magnetic sensor and IR sensor with this function. To set the level to the lower value means that the sensitivity of the sensor is lower. To get the proper value, begin testing from the lower. If the machine detects the real money as

```
USER  MENU
1. SPEED
2. CONTRAST OF NOTE
3. POCKET CAPACITY
4. SETTINGS
5. PC INTERFACE                    ┌ 1. UV LEVEL [01-05]
6. SENSITIVITY SETTING  ───────────┼ 2. MR LEVEL [01-05]
7. PARAMETER                       └ 3. IR LEVEL   [01-05]
8. RESERVED
```

a counterfeit, then change the value to the higher level and try again until getting proper level.

To change the sensitivity, move to "Sensitivity Setting" and press ENTER key then choose one of the sensors by pressing UP/DOWN key or a numeric key. And select a certain level you want to set.

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Parameter

```
USER MENU
1. SPEED
2. CONTRAST OF NOTE
3. POCKET CAPACITY          1. LOADING DEFAULT
4. SETTINGS                 2. LOADING USER
5. PC INTERFACE             3. SAVING USER
6. SENSITIVITY SETTING      4. PRINT No. CLEAR
7. PARAMETER                5. DATE & TIME SET
8. RESERVED                 6. STATION ID SET
                            7. LANGUAGE SET
```

1. Loading Default

This operation refreshes all the parameters with the factory settings.

2. Loading User

If you want to reload your own parameters saved by "Saving User", then select "Loading User" using UP/DOWN key and press START key.

3. Saving User

User can save his/her own setting by using this function. If you want to save your parameters (all settings now set by yourself), move to "Saving User" and press ENTER key or directly press the numeric "3" key.

4. Print No. Clear

This function makes the print sequential number reset to 001. Select "Print No Clear" using UP/DOWN key and press START key.

5. Date & Time Set

Select "Date & Time Set" using UP/DOWN key and press START key then a new window will be open. Input date and time using the numeric keys and UP($\leftarrow$) or DOWN($\rightarrow$) key. To save the change, press START key.

6. Station ID Set

Select "Station ID Set" using UP/DOWN key and press START key to enter. Using UP/DOWN key, input station ID of the machine and then press START key to save the change.

In case two users (Dual User Mode) share the machine, separate Station ID should be set for USER 1 and for USER 2 respectively.

(See submenu "Dual User" in Section. 6. Basic Operation)

7. Language Set

From the SB-9, Language menu is added.   English and Russian are supported. You can select your language at the menu. If the "Russian" is selected the Display says "RUSSIAN SELECTED".   Pressing the "C" key you can find the Language changed to Russian on the Home Display and the Menu.

Reserved

This is reserved for an optional function.

8 Troubleshooting

LCD Error Messages

Display	Meaning
CHECK FRONT AREA	Front Cover is opened or banknotes are inside
CHECK REAR AREA	Rear Cover is opened or banknotes are inside.
FEED MOTOR ERROR	Feed Motor stopped.
CLEAR HOPPER	Notes exist in the Hopper.
CLEAR REJECT POCKET	Notes exist in the Rejecter
CLEAR STACKER POCKET	Notes exist in the Stacker
FEEDING ERROR	Miss-feeding Error
JAM1	Jam Error near RP sensor
JAM2	Jam Error near JP sensor
JAM3	Jam Error near SP sensor
JAM4	Jam Error near guide selector

Notes: Please refer to the figures on "Chapter 9" to see the position of the sensors.

Fixing Problems

CHECK FRONT AREA / CHECK REAR AREA

1. Check if the banknote is inside.

2. Close the cover until it clicks in place.

3. Press CLEAR.

CLEAR HOPPER

1. Remove the banknotes on the Hopper.

2. Press CLEAR.

FEED MOTOR, FEEDING ERROR, JAM1, JAM2, and JAM3*

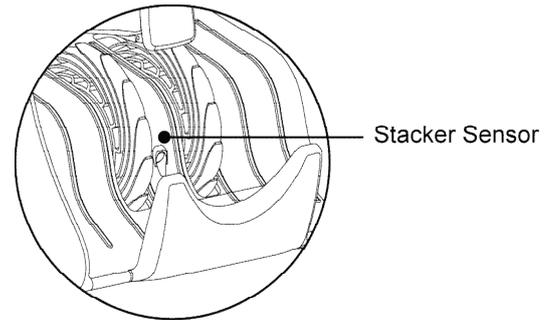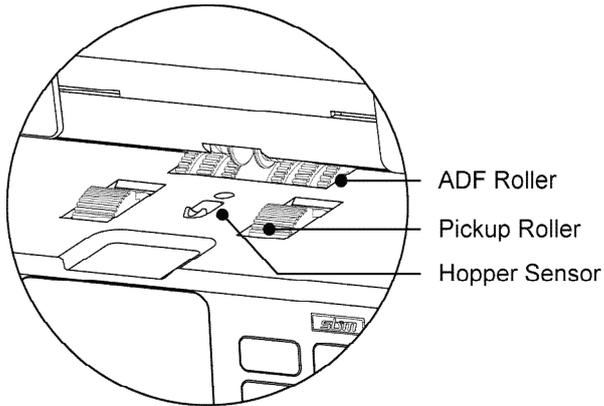1. Remove banknotes on the Hopper.

2. Press CLEAR.

   *) **Caution**:

   In occurrence of JAM3, if the note is tightly jammed and it is not easy to

   remove it, then please open the rear cover and turn a roller to reverse

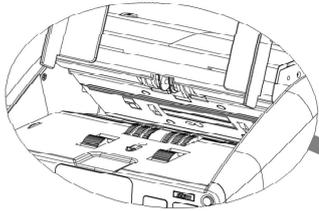   direction by hand, then the jammed note will be clear easily.
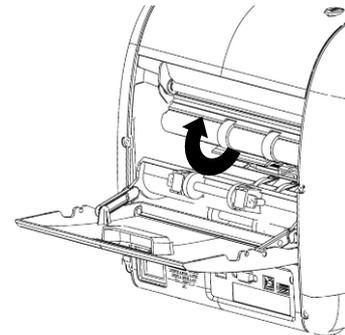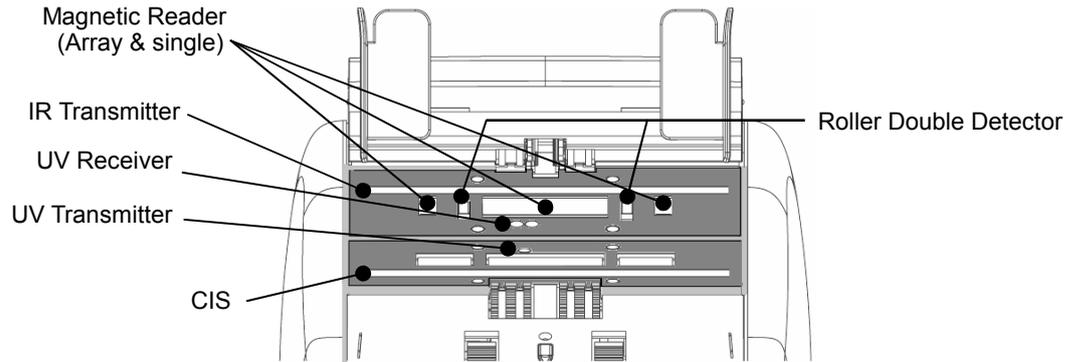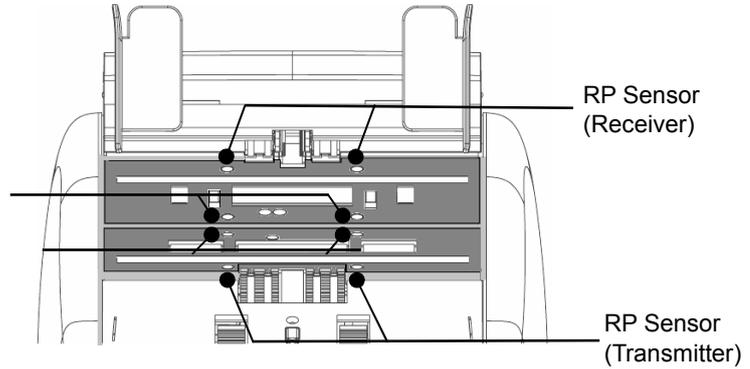
9   Daily Maintenance

This machine uses various sensors to detect the malfunction of the machine and the status of the notes in the machine and to recognize the denominations of the notes. The sensors are very sensitive and if they are not cleaned correctly everyday, this may negatively affect performance of the machine.
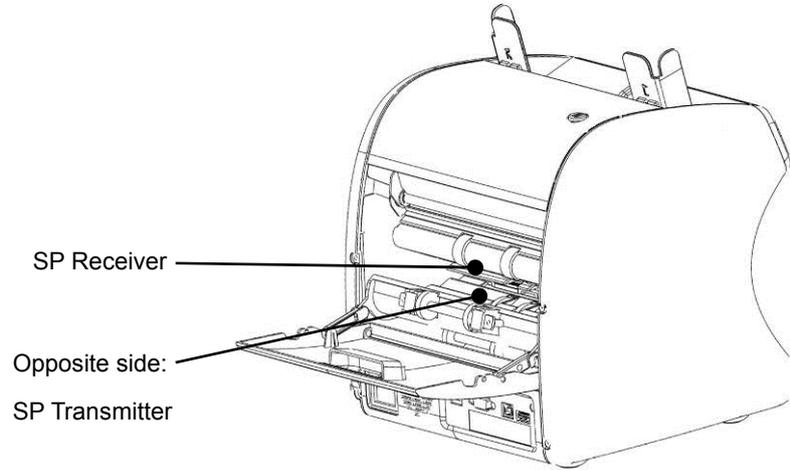
Clean the sensors described below everyday after operating. The power must be turned off before cleaning and please do not use a volatile solvent for cleaning.

ADF Roller

Pickup Roller

Hopper Sensor

Stacker Sensor

RP Sensor
(Receiver)

JP Sensor
(Receiver)

JP Sensor
(Transmitter)

RP Sensor
(Transmitter)

Magnetic Reader
(Array & single)

IR Transmitter

UV Receiver

UV Transmitter

CIS

Roller Double Detector

SP Receiver

Opposite side:

SP Transmitter

Note:

In case of feed roller, clean with slightly dampened cloth with alcohol. While rotating one side of the roller manually, stick the cloth to the other side of the roller.

10 Specifications

Item	Unit	Specification
Size (W x D x H)	mm	280 x 269 x 261
Weight (Net)	Kg / lbs	Approx. 9 / 20
Hopper capacity	Notes	Max. 500
Stacker capacity	Notes	Max. 200
Reject pocket capacity	Notes	Max. 100
Display Type	Dot	128 x 80 Graphic LCD
Connectivity interfaces		2 RS232C Port, 2 USB Port, 1 RJ 45 Port
Currencies available		1 (Available up to 3 currencies)
Banknote size range	mm	W: 100 ~ 185, H: 60 ~ 90
Banknote thickness	mm	0.08 ~ 0.12
Counting Speed	Notes/min	1000/1200/1500
Operating Mode		MIXED/SINGL/FACE/ORIENT/COUNT
Preset Batch Number		1 – 200
Counterfeit Detector		MG, UV (3ch.), MR-Array, IR
Power Requirements		100-240VAC, 50~60Hz

Power Consumption	W	Standby: 7 , Operation: 55
Ambient Conditions		0~40deg/30~85%RH (Non Condensing)

Notes:

- This specification can be changed without further notice to improve its reliability, function or design.

- The contents of this user's guide can also be changed.

- The height dimension does not include the height of the rubber foot.

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