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Every person working at the Fitness Sorter; SB-3000 must have previously read and understand the user manual and, specially the safety information. The Fitness Sorter; SB-3000 may only be operated by authorized personnel and may be serviced by trained and authorized personnel.

### **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 '**Chap8 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 POCKET' in this machine. If wrong date and time are displayed on LCD after correct setting, it is necessary to change the battery of 'PBA POCKET'. 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.



Either the symbol , or a similar symbol, combined with the triangle shaped warning sign from ISO 3864-2, or the following statement or equivalent text shall be used:

**WARNING**

Hazardous moving parts keep away from moving fan blades.

## FCC Compliance Statement

THIS DEVICE COMPLIES WITH PART 15 OF FCC RULES.  
OPERATION IS SUBJECT TO THE FOLLOWING CONDITIONS:

THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND THIS  
DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING  
INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

This manual user general symbols for safety information and symbols to identify special dangers.

**Refer to the below Icons before reading Manual.**

Icon	Word	Explanation
	DANGER WARNING	This symbol with the signal word (Danger/Warning) refers to an immediate risk to life or health.
	CAUTION	This symbol is to identify safety information. Ignoring this warning can result in damage to the system or endanger data consistency.

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SB Series are the most intelligent and reliable banknotes which use Image Processing Technology to recognize banknotes and to discriminate between different denominations. SB-3000, one of the SB Series advanced, is the world's smallest fitness sorter having 3 pockets. SB-3000 has various and useful functions and keeps up with growing customers' demand from all over the world. With modern design, 5" TFT color LCD and user-friendly interface, SB-3000 provides every operator with more comfortable and efficient working environment. 3 Pockets allow operator to perform daily cash processing job and sort banknotes by quality, denomination and counterfeit without any interruption.

**■ Design**

- Modern & Compact design (Large Color 5" TFT LCD)
- Smallest Fitness Sorter with 3 pockets in the world
- Saving working place; Size (306[WL] x 333[D]x370[H])

**■ Performance**

- High accuracy for counterfeit detection; [MG/UV/IR]
- Uniform Fitness sorting level;  
[Soil (dirty), Tape, Tears, Missing corner, Hole, Corner folded, Oil stain, and Graffiti]
- Multi Currencies Capability: Up to 15 currencies
- Various Counting Mode [Fitness/ Count/ Face/Orient/ Dispense/ OCR etc]
- Enhanced Sensors; [CIS(optional: 2CIS)/Magnetic/UV/IR/Roller Tape Detection]
- Applied New type of stacker system: Lift type
- Concurrent users available

**■ Convenience**

- Easy User Interface
- Color Touch Screen applied
- Simply upgrading for using USB Memory Stick
- Easy maintenance
- Many kinds of report for counting results; [Day Total, Grand Total/ By Currency and user]

**■ Data Interface**

- Available Networking
- Various Interfaces  
[3 RS232C ports /2 USB ports (A type, B type)/ LAN]

**2** INSTALLATION

**Packing List**

No.	Part Name	Qty	Remark
1	SB-3000	1 Unit	
2	AC Power Cord	1 pc.	
3	User Manual	1 pc.	
4	Cleaning Brush	1 pc.	
5	Sensor Cleaning Cloth	1 pc.	
6	Serial Cable (Connection between SB-3000 & PC)	1 pc.	Optional
7	Printing Cable (Used in connecting a printer)	1 pc.	Optional

※ The manufacturer does not provide a Micro SD Memory Card.

**Work Area**

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

Do not place our machine:

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

**Handling**

When handling or moving the machine, do not lift with grasping the Front Area. The picture shows how to lift the machine correctly. Please refer to the pictures as right.



**(FIG 2-01)**



**[How to move]**

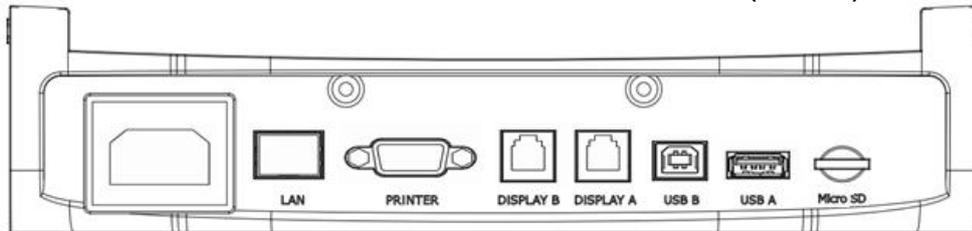
- 1 Get close to the machine and bend your knees.
- 2 Keep your back straight.
- 3 Check the center of weight and hold the grip tight.
- 4 When you turn the direction, do not twist your body but use your steps to turn.

**Connection**

Plug one end of the cord into the back of the machine and the other end into a standard AC power outlet.

**Interface**

(FIG 2-02)



**[LAN]**

1. The counting results is sent to PC though LAN
2. PC can control the set though LAN
3. The set can be upgrade through LAN

**[Serial Pinter]**

SB-3000 has a serial interface port, which allows you to connect your printer to print out counting result. To connect your printer to the machine, follow the steps as below:

1. Make sure that both the SB-3000 and the printer are turned off.
2. Plug the cable of printer into the serial port of SB-3000.
3. Turn on the SB-3000 and set parameters referring to **the Chapter 6 of this manual.**

**[Display A] & [Display B]**

External Display [option] can be connected with these 2 ports  
1 or 2 user can make the counting result display using these ports.

**[USB A]**

The set can be upgraded the firmware with USB Memory Stick.

**[USB B]**

The set can connect SB-3000 to PC with USB B. this port is for Service

1. The massive data will be sent to PC with high speed.
2. If there are problems in USB A, USB B will be the alternative port

**[Micro SD]**

Optional

**[Warning]**



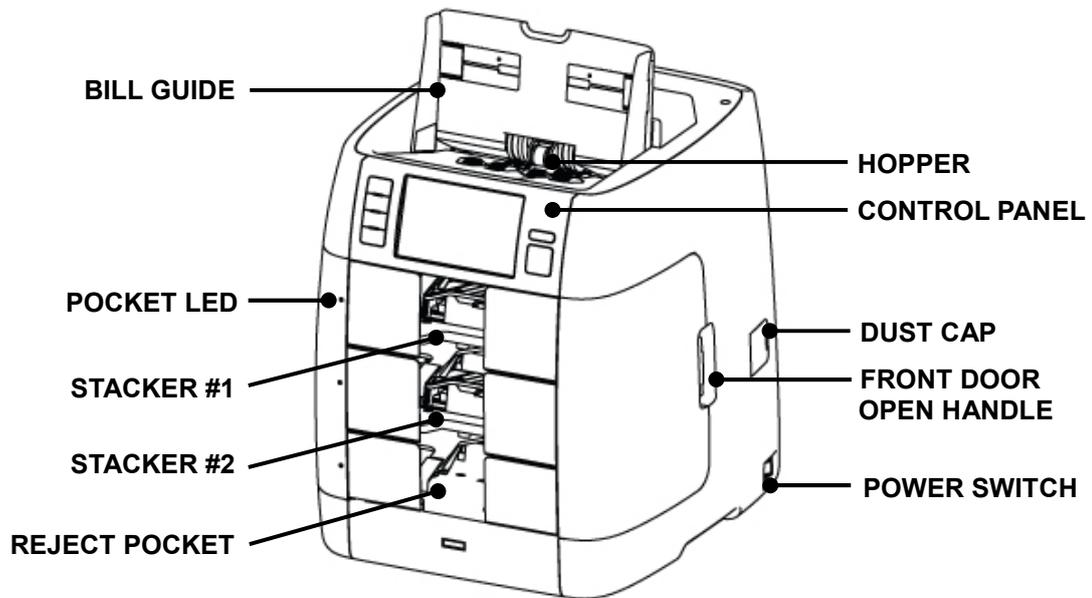
If user inserts USB B into [Display A] or [Display B] port, the machine could be turn off. Please, check the right port before inserting.

**3 OVERALL DESCRIPTION**

**3-1 Description of the Parts**

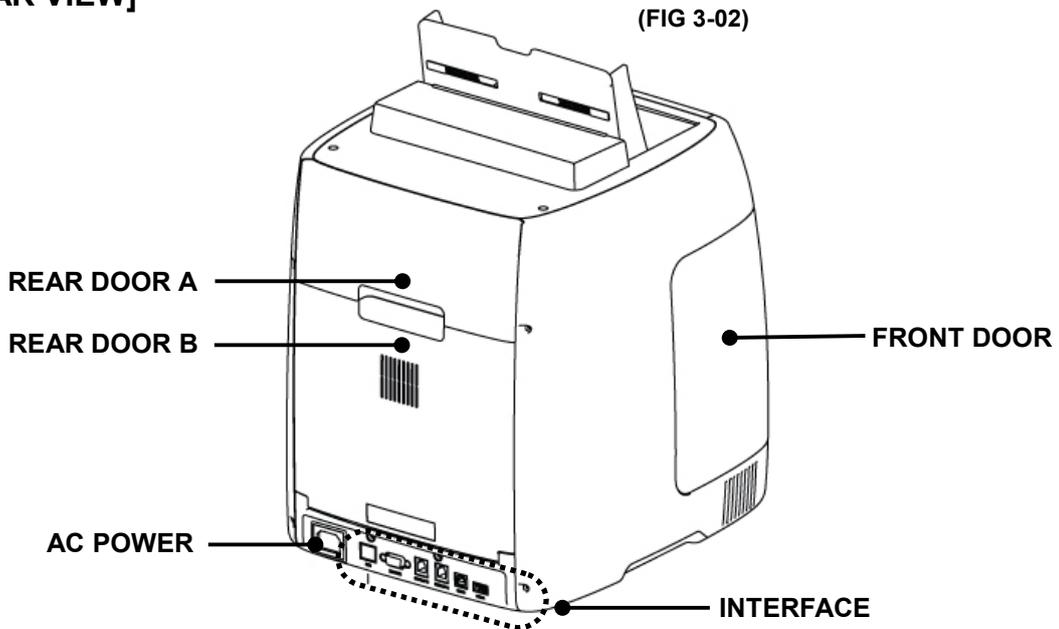
**[FRONT VIEW]**

(FIG 3-01)



**[REAR VIEW]**

(FIG 3-02)



**3-2 Description of Control**

**Overview of Control panel**

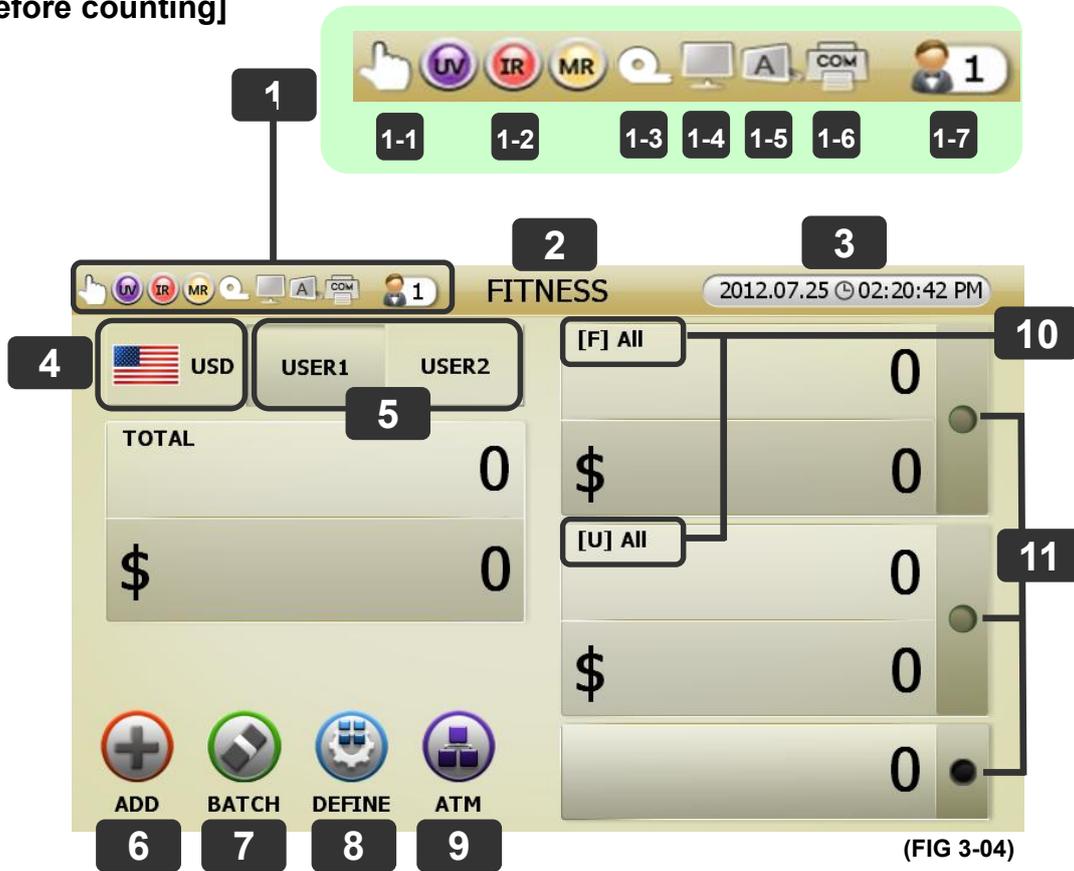
(FIG 3-03)



Indication	Description
	<ul style="list-style-type: none"> <li>- Manually START (when manual starting is set)</li> <li>- Emergency STOP &amp; START while counting.</li> <li>- Save or set the mode</li> <li>- This key means 'OK' and 'YES.'</li> </ul>
	<ul style="list-style-type: none"> <li>- CLEAR the count result or go back to previous stage.</li> <li>- CANCEL the present setting.</li> <li>- User can remove the jammed notes.</li> <li>- This key means 'Cancel', 'Close' and 'No.'</li> </ul>
	<ul style="list-style-type: none"> <li>- To change the display form of count result.</li> <li>- To change the activated icon one by one</li> <li>- This key means CHANGE something.</li> <li>(In case of using [CHANGE] key, will be referred at {Help} part)</li> </ul>
	<ul style="list-style-type: none"> <li>- To change the WORKING MODE.</li> <li>(FITNESS, COUNT, FACE, ORIENT, ISSUE, DISPENSE and OCR)</li> <li>- User can enter ADMIN Menu from MENU.</li> </ul>
	<ul style="list-style-type: none"> <li>- To enter Setting Menu (User can set various Parameters).</li> <li>- To escape from Setting Menu.</li> </ul>
	<ul style="list-style-type: none"> <li>- To print the counted result.</li> </ul>

Overview of Touch Screen

[Before counting]



[After counting]



No.	Name	Description	Note
<b>1</b>	Indicators		
1-1	Start mode	To show auto start or manual start Auto start is Default and in case of manual start this appears	P45
1-2	Counterfeit	To show On/Off of UV/ IR/ MR Sensors	P53
1-3	Tape Sensor	To show Tape Sensor On/Off except for in Fitness Mode	P53
1-4	PC Control	To show SB-3000 is controlled by PC or not	
1-5	Customer Display	To show Customer display is on operation (Display A, B)	P49
1-6	Print Port	To show the using Print Port [COM port, USB port, COM port (USB in P-OCR mode)]	P48
1-7	User Define Mode	To show User Define Mode	P38
<b>2</b>	Present Working Mode	To show present Working Mode	P30
<b>3</b>	Date & Time	To show Date & Time	P46
<b>4</b>	Present Currency	To show present currency. User can change currency when every touch	P20
<b>5</b>	Concurrent User	2 persons can use SB-3000 at the same time To set the user, touch the alternative button Double Touch can change the user	P53
<b>6</b>	ADD	To show ADD is On/Off	P40
<b>7</b>	Batch	Touch Batch button to set Batch function	P41
<b>8</b>	Define	User can define his/her own setting (Max. 8 settings)	P38
<b>9</b>	Sub Mode	Indicates [Sub Mode] icon and Activated in Fitness Mode & OCR Mode.	P31 P36
<b>10</b>	Pocket arrange display	To show the kinds of notes which will be stacked	
<b>11</b>	Pocket LED	To show each pocket is empty/full	
<b>12</b>	INPUT	To correct the count result. User can add the amount of Uncounted notes or coins manually.	P23
<b>13</b>	ACCEPT	Count result will be added to Grand Total	P24
<b>14</b>	Total	The Total of Stacker 1 and Stacker 2	
<b>15</b>	Stacker 1	Stacker Pocket1 count result. Touch this button to see Detail view(User can see Stacker1 & Stacker2 count results)	
<b>16</b>	Stacker2	Stacker Pocket 2 count result. Touch this button to see Detail view (User can see Stacker1 & Stacker2 count results. If Stacker2 is set for Unfit, it displays Unfit Reason.)	
<b>17</b>	Reject	Reject Pocket result. Touch this button to see Detail view.	

**4 PREPARATION OF OPERATION**

**Banknotes Preparation**

**[PROCEDURE]**

**(FIG 4-01)**

Step	Figure	Description
<b>1 Step</b>		Prepare the banknotes under the condition of below (a)
<b>2 Step</b>		Put one side of banknotes on the table and align them.
<b>3 Step</b>		And make them square horizontally and vertically.
<b>4 Step</b>		Now the banknotes are ready.

(a) Proper banknote preparation improves the banknote processing and increase the throughout. Before placing the banknotes into the Hopper, please sort out any banknotes as following.

- Wet notes
- Excessively dirty/ spoiled notes
- Extreme damaged notes
- Severely folded/ curled notes etc.

These banknotes as above should be placed aside and be sorted by manual.

**[CAUTION]**



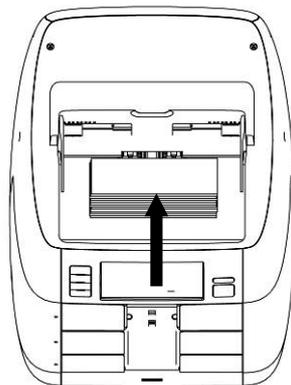
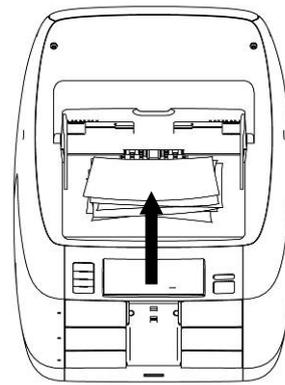
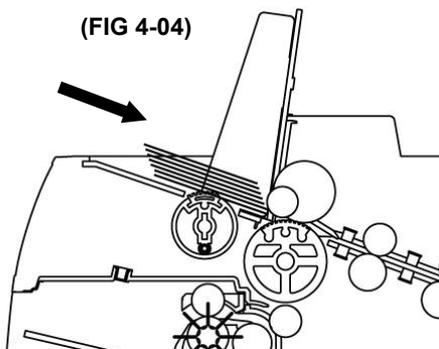
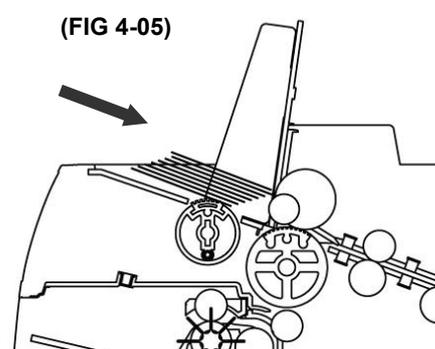
YOU HAVE TO MAKE SURE THAT THERE ARE NO CLIPS, BANDS OR SIMILAR FOREIGN MATERIALS ON THE BANKNOTES. SOMETIMES IT CAUSES MALFUNCTION OF THE MACHINE.

**How to adjust the Bill Guide**

Before putting the banknotes into the Hopper, user needs to adjust the Bill Guide. Users should make sure that there is enough room on the sides for the banknotes to be pulled in the Hopper easily (banknote length + approximately 5mm)

**How to place banknotes into the Hopper**

It is very important to place the banknotes on the hopper correctly because recognition performance of the banknotes is highly affected by the arrangement of the banknotes. And the number of the rejected notes can be increased when they are not arranged and placed properly. Refer to the pictures for the correct placement of the banknotes.

**(FIG 4-02)****(Good)****(FIG 4-03)****(No good)****(FIG 4-04)****(Good)****(FIG 4-05)****(No good)**

## Counting

In AUTO mode, SB-3000 starts to count the bill automatically as it detects the existence of the banknotes in the hopper. In MANUAL mode, the machine will start to count the banknotes only if the banknotes are placed into the hopper and START key is pressed. While counting, the machine will display the number of the banknotes 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 function.
- 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 "C" 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 rear door A (rear top) or rear door B (rear middle or rear bottom) and get rid of jammed banknotes and close the cover correctly. Then the machine can clear error message automatically.

(Stop in operation)

Press [START/STOP] button to stop operation for an instant while the machine is operating. If you want to count continuously again, press [START/STOP] button.

Stop in operation

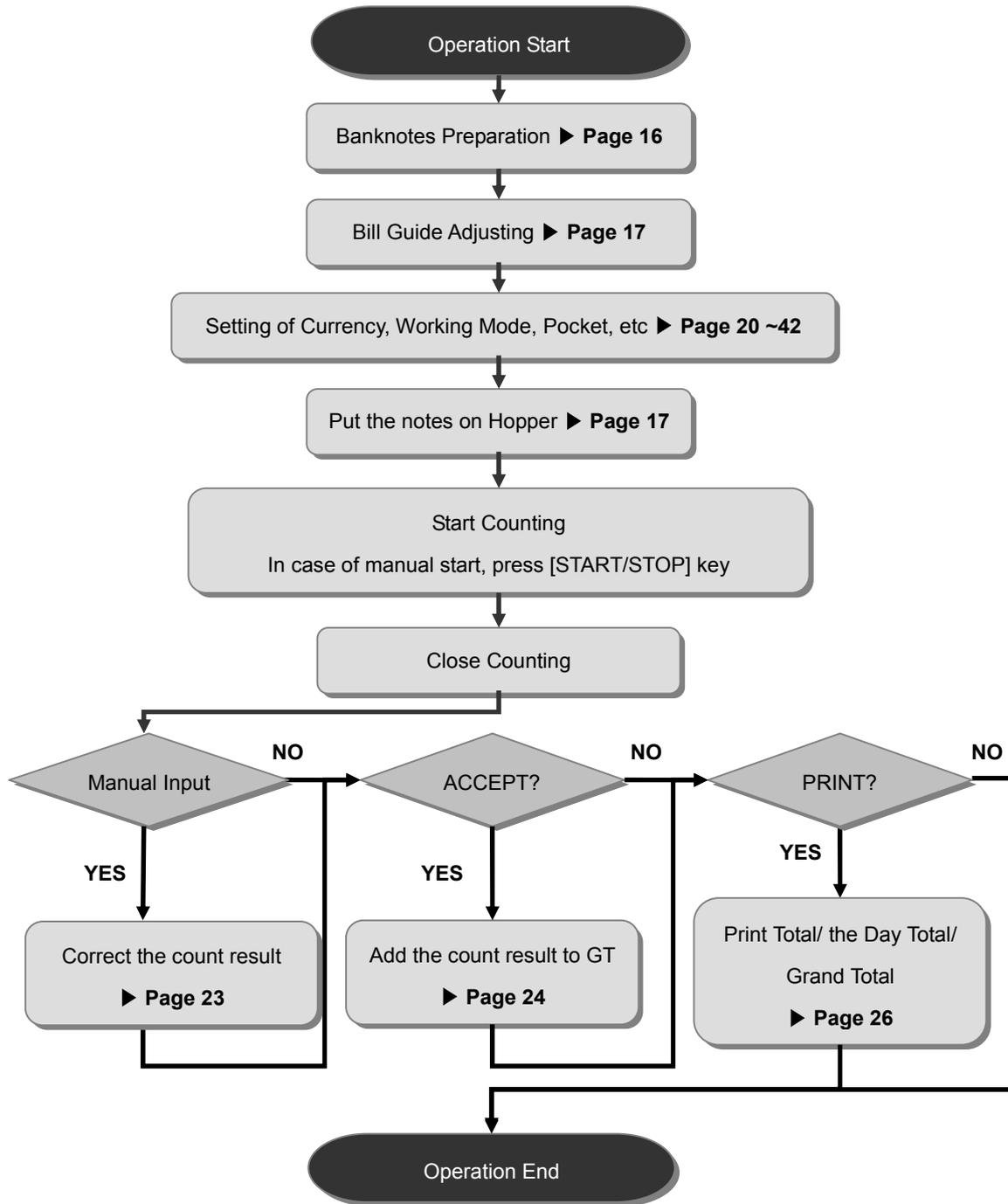
Please START button to stop operation while the machine is counting.

If you want to count continuously again, press [START/STOP] button.

**5 BASIC OPERATION**

**5-1 Procedure of Operation**

**5.1.1. Flow Chart**



**5.1.2. Currency Selection**

In order to change the Currency, touch [CURRENCY] icon.

**If you need to purchase more software to handle different currencies, PLESASE CONSULT WITH YOUR DEALER.**



(FIG 5-01)



(FIG 5-02)

**5.1.3. Working Mode Setting**

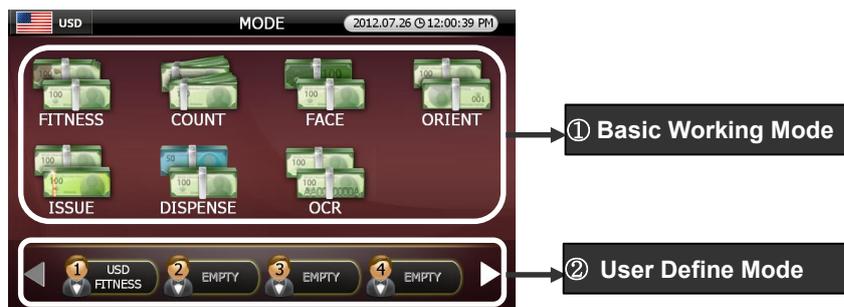
- Can set working mode as below.

[1] Pressing [MODE] button in initial screen (FIG 5-03), the screen will change Mode screen like below (FIG 5-04).



(FIG 5-03)

[2] MODE selection screen displays 2 windows like below (FIG 5-04).



(FIG 5-04)

- ① Basic Working Mode: Fitness, Count, Face, Orient, Issue, Dispense, OCR Mode
- ② User Define Mode: User can set up Max 8 modes for his/her usual or specific purpose.

[3] Can select the 'Working Mode' by touching the icon.

[4] The screen will change into initial screen of working mode selected

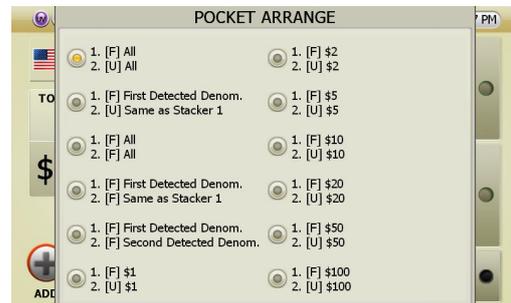
- Can allocate stacker and reject pockets in Basic Working Mode like below.

[1] If user press [CHANGE] button in initial screen (FIG 5-05), the display will change like below (FIG 5-06).



**(FIG 5-05)**

[2] Can select the pocket allocation in 'POCKET ARRANGE' list by touching the title



**(FIG 5-06)**

[3] The screen will change into initial screen

[4] Pocket Arrange list explanation

Pocket Arrange indication	Stacker 1, Stacker 2 explanations
1. [F] All 2. [U] All	Stacker 1: All the Fit notes Stacker 2: All the Unfit notes
1. [F] First Detected Denom. 2. [U] Same as Stacker 1	Stacker 1: First detected Fit Denom. notes Stacker 2: Same as Stacker 1 notes but Unfit
1. [F] All 2. [F] All	Stacker 1: All the Fit notes Stacker 2: All the Fit notes
1. [F] First Detected Denom. 2. [F] Same as Stacker 1	Stacker 1: First detected Fit Denom. notes Stacker 2: Same as Stacker 1

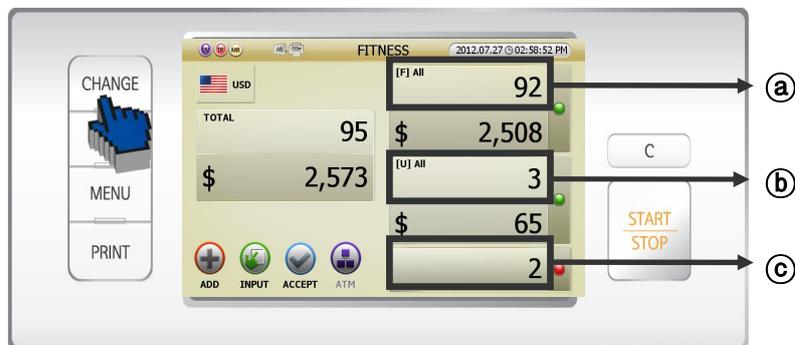
1. [F] First Detected Denom. 2. [F] Second Detected Denom.	Stacker 1: First detected Fit Denom. notes Stacker 2: Second detected Fit Denom. notes
1. [F] \$1 2. [U] \$1	Stacker 1: Fit \$1 Stacker 2: Unfit \$1
1. [F] \$2 2. [U] \$2	Stacker 1: Fit \$2 Stacker 2: Unfit \$2
1. [F] \$5 2. [U] \$5	Stacker 1: Fit \$5 Stacker 2: Unfit \$5
1. [F] \$10 2. [U] \$10	Stacker 1: Fit \$10 Stacker 2: Unfit \$10
1. [F] \$20 2. [U] \$20	Stacker 1: Fit \$20 Stacker 2: Unfit \$20
1. [F] \$50 2. [U] \$50	Stacker 1: Fit \$50 Stacker 2: Unfit \$50
1. [F] \$100 2. [U] \$100	Stacker 1: Fit \$100 Stacker 2: Unfit \$100

**5.1.4 Counting Result Confirmation**

Remark) Below picture are under the condition of [Fitness Mode] that Stacker 1 was [F] All and Stacker 2 was [U] All.

1 Counting Result Confirmation in Counting Result screen

[1] Pressing [CHANGE] button consecutively after counting, can see 3 screens like below pictures.



**(FIG 5-07)**

DENOM.	ST1	ST2	AMOUNT
1 \$	0	0	0
2 \$	4	0	8
5 \$	32	1	165
10 \$	29	1	300
20 \$	5	0	100
50 \$	5	1	300
100 \$	17	0	1,700
<b>Total</b>	<b>92</b>	<b>3</b>	<b>2,573</b>
<b>Reject</b>		<b>95 Coin</b>	<b>0</b>
		<b>2 Result</b>	<b>2,573</b>

**(FIG 5-08)**

NO.	UNFIT REASON
1	TEAR
2	TEAR
3	CORNER

**(FIG 5-09)**

NO.	REASON	DETAIL
1	NO I.D.2	OUT OF HEIGHT
2	NO I.D.2	OUT OF HEIGHT

**(FIG 5-10)**

[2] If you touch the section of result in screen (fig 5-07), the screen will show specific results.

- ① If you touch the section (a) in Stacker 1, the screen will show the 'COUNTING DETAILS' (FIG 5-08).
- ② If your touch the section (b) in Stacker 2, the screen will show the 'UNFIT REASON' (FIG 5-09).
- ③ If your touch the section (c) in Reject, the screen will show the 'Reject Reason' (FIG 5-10).

2 [INPUT] function is designed to correct the counting result. You can add the amount of uncounted notes (because of seriously damaged notes) or coins manually. If user touch [INPUT] icon in counting result screen (FIG 5-11), You can see INPUT VALUE screen (FIG 5-12) and can correct the count result minutely.

USD	[F] All	92
TOTAL	\$	2,508
\$	[U] All	3
	\$	65
		2

**(FIG 5-11)**

CHANGE ST	DENOM.	ST1	PCS.	AMOUNT
+	1 \$	0	0	0
-	2 \$	4	0	8
INPUT COIN	5 \$	32	0	160
	\$ 0	10 \$	29	290
ALL TOTAL	20 \$	5	0	100
\$ 2,573	50 \$	5	0	250
	TOTAL	92	0	2,508

**(FIG 5-12)**

3 [ACCEPT] function means that user can add the counting result to Grand Total.

This is how to use [ACCEPT] function.

[1] If user touch [ACCEPT] icon in counting result screen,



(FIG 5-11)



(FIG 5-13)

[2] Or If you touch ④ section in counting result screen, can see the GRAND TOTAL Screen (FIG 5-14). After you check the screen, touch the [ACCEPT] icon. Then the counting result will be added to GRAND TOTAL.



(FIG 5-14)



(FIG 5-15)

**Caution) The counting result can be [Accepted] only in [ADD] function-Off after taken off the notes in the Pockets or Hopper**

[3] Auto Accept

If you want, can set 'Auto Accept.' (Referring to page 45)

But, though it is set [Auto Accept], it is switched manually when Reject occurs on the counting

### 5.1.5 Grand Total (GT)

Grand Total means the accumulation of counted notes that user accepted. Namely, if you touch [ACCEPT] icon after counting, the result will be added to GRAND TOTAL.

SB-3000 can show 3 kinds of count result. One is present 'Total,' another is the 'Day Total,' and the other is 'Grand Total.'

1. There are two ways how to calculate Grand Total **(Referring to page 24)**.

- [1] Can touch [ACCEPT] icon in counting result screen (FIG 5-11),
- [2] Or if you touch 'TOTAL' area in counting result screen (FIG 5-11), can see GRAND TOTAL screen (FIG 5-14). After you check the screen, touch the [ACCEPT] icon. Then the counting result will be added to GRAND TOTAL.

2. Can check THE DAY TOTAL DETAILS and GRAND TOTAL DETAILS by touching the section in **Grand Total Screen (FIG 5-16)**.

- [1] Press [CHANGE] button, and can see THE DAY TOTAL DETAIL screen (FIG 5-17) and GRAND TOTAL DETAIL screen (FIG 5-18).



**(FIG 5-16)**

THE DAY TOTAL DETAILS		
DENOM.	COUNT	AMOUNT
1 \$	0	0
2 \$	81	162
5 \$	662	3,310
10 \$	582	5,820
20 \$	227	4,540
50 \$	113	5,650
100 \$	332	33,200
<b>Total</b>	<b>1997</b>	<b>52,682</b>
Coin		0
<b>Total Amount</b>		<b>52,682</b>

**(FIG 5-17)**

GRAND TOTAL DETAILS		
DENOM.	COUNT	AMOUNT
1 \$	0	0
2 \$	0	0
5 \$	59	295
10 \$	49	490
20 \$	46	920
50 \$	51	2,550
100 \$	43	4,300
<b>Total</b>	<b>248</b>	<b>8,555</b>
Coin		0
<b>Total Amount</b>		<b>8,555</b>

**(FIG 5-18)**

[2] Touch the screen section in GRAND TOTAL screen (FIG 5-16), can enter detail stages.

- ① If you touch the section (a) in Stacker 1, can enter THE DAY TOTAL DETAILS screen (FIG 5-17).
- ② If your touch the section (b) in Stacker 2, can enter GRAND TOTAL DETAILS screen (FIG 5-18).

3. Can control [Grand Total] at ADMIN. MENU. **(Referring to page 54)**

**5.1.6 Print**

SB-3000 can print out below 3 results.

Present count result /GRAND TOTAL per user/GRAND TOTAL of SB-3000

■ **Present Count Result Printing**

Press [Print] Key after counting, and can print out as below.



**(FIG 5-19)**

\* Caution) In order to print out, notes in Reject Pocket must be removed.

[1] If Stacker 1 and Stacker 2 are set as [Fit] and [Unfit] under Fitness mode, the print report will show the result of Stacker1 [Fit] and Stacker 2 [Unfit] like right picture.

[2] If Stacker 1 and Stacker 2 are set as all [Fit], the print report will show the sum of counting.

[3] If it is not under Fitness mode, the print report will show the sum of counting.

*** REPORT ST1***			
2012, Jul. 28, 17:13		Station: 1	
Deposit No.: 38		Fitness	
FIT		UV MG IR	
DENOM	UNIT	TOTAL	
\$1	0	\$	0
\$2	0	\$	0
\$5	12	\$	60
\$10	24	\$	240
\$20	13	\$	260
\$50	3	\$	150
\$100	10	\$	1,000
-----			
TOTAL	62	\$	1,710
-----			
*** REPORT ST2***			
2012, Jul. 28, 17:13		Station: 1	
Deposit No.: 38		Fitness	
UNFIT		UV MG IR	
DENOM	UNIT	TOTAL	
\$1	0	\$	0
\$2	1	\$	2
\$5	8	\$	40
\$10	2	\$	20
\$20	0	\$	0
\$50	3	\$	150
\$100	0	\$	0
-----			
TOTAL	14	\$	212
-----			
SUM TOTAL			
-----			
TOTAL	76	\$	1,922
-----			

**(FIG 5-20)**

*** REPORT ***			
2012, Jul. 28, 17:24		Station: 1	
Deposit No.: 40		Count	
		UV MG IR	
DENOM	UNIT	TOTAL	
\$1	0	\$	0
\$2	0	\$	0
\$5	11	\$	55
\$10	16	\$	160
\$20	0	\$	0
\$50	2	\$	100
\$100	11	\$	1,100
-----			
TOTAL	40	\$	1,415
-----			

**(FIG 5-21)**

[4] In case you wants to correct the counting result by [INPUT] function (**Referring to page 23**).  
 If you print out the corrected counting result, the print report shows the 'Manual Input'  
 separately and shows the sum of counting below the 'Manual Input.'

*** REPORT ***			
2012, Jul. 28, 17:28		Station: 1	
Deposit No.: 41		Count	
DENOM	UNIT	UV MG IR	TOTAL
\$1	0	\$	0
\$2	0	\$	0
\$5	11	\$	55
\$10	16	\$	160
\$20	0	\$	0
\$50	2	\$	100
\$100	11	\$	1,100
-----			
A-TOT	40	\$	1,415
-----			
MANUAL INPUT			
DENOM	UNIT		TOTAL
\$1	5	\$	5
\$2	3	\$	6
\$5	1	\$	5
-----			
B-TOT	9	\$	16
-----			
A+B TOT			
-----			
TOTAL	49	\$	1,431
-----			

(FIG 5-22)

■ **Grand Total Print per user**

Up to 8 users can count banknotes with one SB-3000. And each user can print out his/her own GRAND TOTAL.

1. Can check your own counting result at MY TOTAL RECORD in USER MENU.

MY TOTAL RECORD	
 USD  PRINT	THE DAY TOTAL 2925 pcs. <b>\$ 72,912</b> → (a)
	THE DAY TOTAL (PREVIOUS RECORD) 1997 pcs. <b>\$ 52,682</b> → (b)
	GRAND TOTAL 4966 pcs. <b>\$ 126,133</b> → (c)
	GRAND TOTAL (PREVIOUS RECORD) 0 pcs. <b>\$ 0</b> → (d)

 If you want to see detailed record, press 'CHANGE' key or click summary button.

(FIG 5-23)

2. How to print out at MY GRAND TOTAL.

[1] Press [PRINT] button or touch [PRINT] icon in MY TOTAL RECORD screen (FIG 5-23), the inner window will appear. Each cell means as below.



(FIG 5-24)

- ① All records: GRAND TOTAL 1 REPORT/ GT1 OLD REPORT/ GRAND TOTAL 2 REPORT/ GT2 OLD REPORT
- ② The Day Total: GRAND TOTAL 1 REPORT/ GT1 OLD REPORT
- ③ Grand Total: GRAND TOTAL 2 REPORT/ GT2 OLD REPORT

*** GRAND TOTAL1 REPORT ***			
2012, Jul. 28, 18:14 Station:1			
DENOM	UNIT		TOTAL
\$1	27	\$	27
\$2	135	\$	270
\$5	943	\$	4,715
\$10	810	\$	8,100
\$20	390	\$	7,800
\$50	200	\$	10,000
\$100	420	\$	42,000
COIN	-	\$	0
-----			
TOTAL	2,925	\$	72,912
-----			
*** GT1 OLD REPORT ***			
2012, Jul. 28, 18:14 Station:1			
DENOM	UNIT		TOTAL
\$1	0	\$	0
\$2	81	\$	162
\$5	662	\$	3,310
\$10	582	\$	5,820
\$20	227	\$	4,540
\$50	113	\$	5,650
\$100	332	\$	33,200
COIN	-	\$	0
-----			
TOTAL	1,997	\$	52,682

(FIG 5-25)

*** GRAND TOTAL2 REPORT ***			
2012, Jul. 28, 18:38 Station:1			
DENOM	UNIT		TOTAL
\$1	33	\$	33
\$2	216	\$	432
\$5	1613	\$	8,065
\$10	1415	\$	14,150
\$20	620	\$	12,400
\$50	317	\$	15,850
\$100	752	\$	75,200
COIN	-	\$	3
-----			
TOTAL	4,966	\$	126,136
-----			
*** GT2 OLD REPORT ***			
2012, Jul. 28, 18:38 Station:1			
DENOM	UNIT		TOTAL
\$1	0	\$	0
\$2	0	\$	0
\$5	0	\$	0
\$10	0	\$	0
\$20	0	\$	0
\$50	0	\$	0
\$100	0	\$	0
COIN	-	\$	0
-----			
TOTAL	0	\$	0

(FIG 5-26)

[2] Press [CHANGE] button or touch the each area of sum(a)/(b)/(c)/(d) in MY TOTAL RECORD screen (FIG 5-24) for selecting the print item, can press [PRINT] button or touch [PRINT] icon in order to print out.

■ **How to print Grand Total of SB-3000**

Can check in ADMIN MENU (Referring to page 54).

**5.1.7 Reject Reasons**

No.	Display on Screen	Meaning
1	NO I.D	The machine failed to identify the denomination.
2	No READ	The note was not successfully read
3	OVER RUN	The next note was fed too close to the first one.
4	SUSPECT (CF)	The note was suspected to be counterfeit by UV,MR and IR sensors
5	STAY NOTE	The note was not fit to the condition of sorting
6	DOUBLE	More than two pieces of notes were fed into machine.
7	CHAIN	Chain Error
8	HALF	Half Error
9	Over count	The note was in machine after completing the count fit to the condition of sorting.

**(Caution)**

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

## 5.2.0. Working Mode & Functions

### 5.2.1. Summary

#### ■ Working Mode

##### [Basic Working Mode]

- FITNESS Mode: SB-3000 can count and sort Fit Note from Unfit Note.
- COUNT Mode: SB-3000 can count and sort mixed denomination notes and can sort by denominations.
- FACE Mode: SB-3000 can count and sort Face(Head) and Back(Tail).
- ORIENT Mode: SB-3000 can count and sort Face/Back and Up/Down each.
- ISSUE Mode: SB-3000 can count and sort old/new issue notes.
- DISPENSE Mode: User can set batch numbers by denominations. (Like Multi-Bach Mode)
- OCR Mode: SB-3000 can read and print the Serial No. of banknotes. **(Option)**

##### [User Define Mode]

- User Define Mode: User can set up to 8 modes for his/her usual or specific purpose.

#### ■ Function

- ADD Function: Counting result will be not cleared but added. After the 'ADD Function' is on, the counted result and the present result will be summed up.
- BATCH Function: SB-3000 provides the preset numbers of banknotes or the preset amount of value.

### 5.2.2. Basic Working Mode

#### ■ FITNESS MODE



FITNESS MODE discriminates circulated bank notes between to recycle and to dispose.

Therefore, unfit bank notes by stains, holes and graffiti etc. are sent to the designated pocket.

There are 8 items of the Fitness standards

discriminating between to recycle and to dispose coinciding with pre-set criteria.

**Fitness conditions**

- ① Soiling (Dirty): General Distribution of dirt across the entire banknote
- ② Tapes: Self-explanatory
- ③ Tear: Self-explanatory
- ④ Missing corner: Self-explanatory
- ⑤ Holes: Self-explanatory
- ⑥ Corner folded (Dog-ears): Self-explanatory
- ⑦ Oil stain: Localized concentration of dirty
- ⑧ Graffiti (Including stamp): Deliberate graphical alteration of the banknote



(FIG 5-27)

FITNESS mode can be set up by 3 different Sub Modes. Touch [ATM] icon in FITNESS MODE (FIG 5-01). Then, user can select the one of Fitness Sub-Mode in the initial screen (FIG 5-28).



(FIG 5-01)



(FIG 5-28)

You can set up one of 3 different modes with different value of 8 items of the Fitness standards. You can set FITNESS MODE in Admin. MENU. (Referring to page 50)

- Pocket Arrange designation

Can classify and designate previously set [Stacker 1] and [Stacker 2] by pressing [CHANGE] button in FITNESS Mode. **(Referring to page 21)**

■ **COUNT MODE**

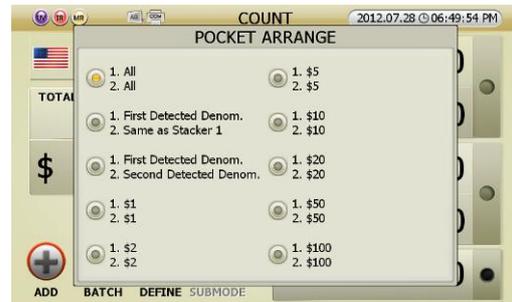


One function is called Mixed mode that can detect and count the value of mixed denominations, another function is called Single mode that can detect and count the value of designated denomination only.

In order to use single mode function, select single denomination in Pocket Arrange screen, and in order to use mixed mode, select all denominations in Pocket Arrange screen. In addition, the pockets of SB-3000 can be set up separately by user's classification.

- Pocket Arrange designation:

Can classify and designate previously set [Stacker 1] and [Stacker 2] by pressing [CHANGE] button in COUNT Mode.



**(FIG 5-29)**

Below is description of the designated pocket **(Referring to page 21)**

<b>Pocket Arrange Display</b>	<b>Earmarked banknote in Stacker 1, Stacker 2</b>
1. All 2. All	Stacker 1: All denomination Stacker 2: All denomination
1. First Detected Denom. 2. Same as Stacker 1	Stacker 1: The first detected denomination Stacker 2: Same denomination as Stacker 1
1. First Detected Denom. 2. Second Detected Denom.	Stacker 1: The first detected denomination Stacker 2: The second detected denomination.

■ FACE Mode



FACE Mode discriminates and counts the FACE (HEAD) and BACK (TAIL) of notes.

- Pocket Arrange designation:  
Can classify and designate previously set [Stacker 1] and [Stacker 2] by pressing [CHANGE] button in FACE Mode



(FIG 5-30)

Below is description of the designated pocket.

Pocket Arrange Display	Earmarked Banknote in Stacker 1, Stacker 2
1. Face: All 2. Back: All	Stacker 1: All denomination with front face Stacker 2: All denomination with rear
1. First Detected Face 2. Same as Stacker 1	Stacker 1: The first detected front face Stacker 2: Same denomination of Stacker 1
1. First Detected Face 2. Second Detected Face	Stacker 1: The first detected front face Stacker 2: The second detected front face

■ ORIENT Mode



ORIENT Mode classifies banknotes according to the directions.

- **Pocket Arrange Designation:**

Can classify and designate previously set [Stacker 1] and [Stacker 2] by pressing [CHANGE] Button in ORIENT mode.



(FIG 5-31)

Below is description of the designated pocket.

Pocket Arrange Display	Earmarked Banknote in Stacker 1, Stacker 2
1. Upward: All 2. Downward: All	Stacker 1: All denominations in upward Stacker 2: All denominations in downward
1. Detected Direction: All 2. Same as Stacker 1.	Stacker 1: The first detected direction in all denominations Stacker 2: Same as Stacker1
1. Detected Direction: All 2. Second Detected: All	Stacker 1: The first detected direction in all denominations Stacker 2: The second detected direction in all denomination
1. Detected Direction: DD 2. Same as Stacker 1	Stacker 1: The first detected direction Stacker 2: Same as Stacker1
1. Detected Direction: DD 2. Second Detected	Stacker 1: The first detected direction Stacker 2: The second detected direction

■ **ISSUE Mode**



ISSUE Mode classifies and counts bank notes by the old and new issue.

- **Pocket Arrange Designation:**  
Can classify and designate previously set [Stacker 1] and [Stacker 2] by pressing [CHANGE] button in ISSUE mode.



(FIG 5-32)

Below is description of the designated pocket

Pocket Arrange Display	Earmarked banknote in Stacker 1, Stacker 2
1. New: All 2. Old: All	Stacker 1: new issue banknotes Stacker 2: The old issue banknotes
1. New: All 2. New: All	Stacker 1: The new issue banknotes Stacker 2: The new issue banknotes
1. Old: All 2. Old: All	Stacker 1: The old issue banknotes Stacker 2: The old issue banknotes

■ **DISPENSE Mode**



DISPENSE Mode is a Multi- Batch function to dispense by certain q'ty of each denomination.

For instance, place bundles of USD 100 value in each denomination, USD 1, USD 5, USD 10, USD 20 in the hopper, This mode can dispense in 100 notes of

USD 1, 20 notes of USD 5, 20 notes of USD 5 and 10 notes of USD 20

Follow below procedure to set up by each denomination.

- [1] Touch (BATCH) icon in DISPENSE mode



(FIG 5-33)

[2] Set up by each denomination in [SET DEMON, BATCH] screen.

SET BATCH		
DENOM	COUNT	AMOUNT BATCH
1 \$	100	100
2 \$	100	200
5 \$	100	500
10 \$	100	1,000
20 \$	100	2,000
50 \$	100	5,000

THE RANGE  
MIN : 1 MAX : 200

(FIG 5-34)

SET BATCH				
				10000
1	2	3	+10	-10
4	5	6	+100	-100
7	8	9	+1000	-1000
←	CLEAR	0	00	000

THE RANGE  
MIN : 1 MAX : 200

(FIG 5-35)

■ **OCR Mode (Option)**



SB-3000 can read and print characters of Serial No. in banknotes.

OCR mode has four Sub Modes. Touch [SERIAL] icon in OCR Mode (FIG 5-36) and user can select SERIAL or SOCR or POOCR in OCR SUBMODE (FIG 5-37).



(FIG 5-36)



(FIG 5-37)

OCR Mode has four sub options as below.

1 SERIAL Mode (Serial Number Printing Mode): In SRLP mode, SB-3000 reads serial No of banknote and prints it as an image.

2 SOCR (SB series-Optical Character Reader Mode): In S-OCR mode, SB-3000 reads the serial no. of banknotes and prints its images.

3 POCR (PC-Optical Character Reader Mode): In P-OCR mode, SB-3000 reads serial numbers of banknotes and prints them as images and at the same time, the images are sent to the PC. By running the application program on the computer, user can read the image and convert it into OCR data so that user can store and manage it.

4 [OPTION] SNC Mode (Serial Number Comparison Mode): In SNC mode, SB-3000 can read the serial number and can identify the both serial numbers in the banknote. In case the serial numbers are not identical, the note will be sent to the reject pocket and indicated as “SNC ERROR”



(FIG 5-38)

- Pocket Arrange Designation:  
Can classify and designate previously set [Stacker 1] and [Stacker 2] by pressing [CHANGE] button in OCR Mode.



(FIG 5-39)

Below is description of designated pocket.

Pocket Arrange Display	Earmarked banknote in Stacker 1, Stacker 2
1. All 2. All	Stacker 1: All denominations Stacker 2: All denominations
1. First Detected Denom. 2. Same as Stacker 1	Stacker 1: The first detected denomination Stacker 2: same denomination as Stacker 1
1. First Detected Denom. 2. Second Detected Denom.	Stacker 1: The first detected direction Stacker 2: The second detected direction
1. FACE: All 2. BACK: All	Stacker 1: All denominations of front Stacker 2: All denominations of rear

**5.2.3. User Define Mode**

'User Define Mode' means that user can set up Max 8 modes for his/her usual or specific purpose. User can set and save his/her own mode and can select easily just touching this icon.

- How to set User Define Mode

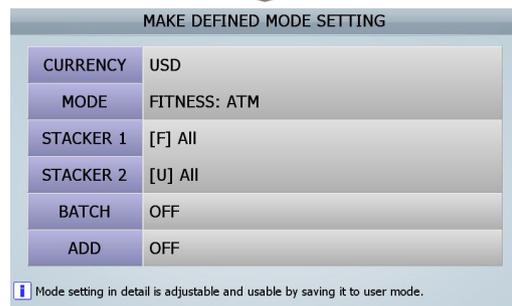
1 In order to set in initial screen

[1] Touch [DEFINE] icon in initial screen (FIG 5-01), and can enter 'MAKE DEFINED MODE SETTING (FIG 5-40).'



**(FIG 5-01)**

[2] Can set Currency, Working Mode, Stacker 1&2, Batch On/Off and Add function On/Off like right picture(FIG 5-40).



**(FIG 5-40)**

[3] If the setting is decided, press [START/STOP] button to save. Pree [C] to cancel the setting.

[4] Press [START/STOP] button, and can save the 'User Define Mode' number(No.1) and this will be activated.

[5] The picture on the right is that screen indicator shows 'User Define Mode(No.1)' is activating.



**(FIG 5-41)**

2 In order to set in 'User Define Mode'

[1] Pressing [MODE] button in initial screen (FIG 5-01), the screen will be will changed into 'MODE selection.'(FIG 5-42).

[2] Pressing [CHANGE] button in 'MODE selection'(FIG 5-42), the screen will be changed into 'User Define Mode' (FIG 5-43).



(FIG 5-42)

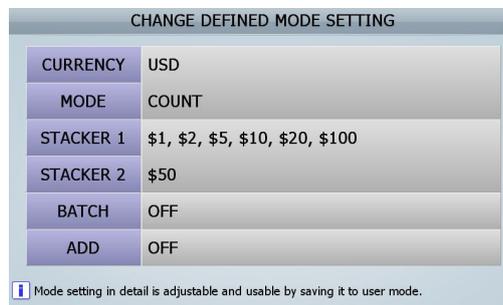
[3] Can set details in this 'Mode'.

① In order to set up new User Mode, touch [New] icon and activate 'MAKE DEFINED MODE SETTING.' stage(FIG 5-40)



(FIG 5-43)

② In order to edit previous User Mode, touch [EDIT] icon and activate 'CHANGE DEFINED MODE SETTING.'(FIG 5-44) Change and save the details.

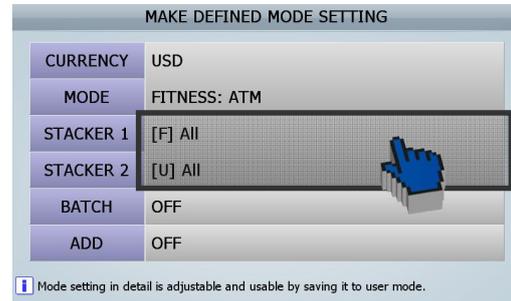


(FIG 5-44)

③ In order to delete the previous User Mode, touch [DELETE] icon.

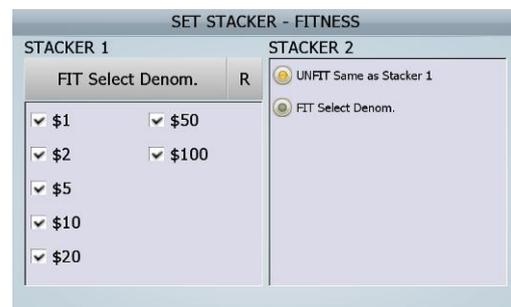
- Can change the stacker pockets like below in User Define Mode.

[1] In order to activate 'MAKE DEFINED MODE SETTING(FIG 5-40),' User can touch [DEFINE] icon in initial screen (FIG 5-01).



(FIG 5-40)

[2] Press [Stacker 1]/[Stacker 2], then user can see 'SET STACKER-FITNESS(FIG5-45)' like the picture on the right.



(FIG 5-45)

- [3] Can select the notes in 'FIT Select Denom.' list in 'Set Stacker-Fitness(FIG 5-45)' stage.
- [4] Save in 'User Define Mode' and user can start to work.

### 5.2.4. Functions

#### ■ ADD Function

In general situation, counting result initialize when pocket empty, but if ADD button was activated, counting result is displayed by automatically added from the previous counting result even if pocket is empty.

**Caution) ACCEPT function is not available when ADD is set.**

- ADD is activated by touching ADD button on the screen of each mode.



(FIG 5-01)

■ **BATCH Function**

Batch is used when user want to count specific number of banknotes. For example, Batch is used when user want to count 50pcs of banknotes while Stacker pocket capacity is set to 100pcs.

When BATCH Function is on, operation is stopped after counting the number user set in advance even if banknotes still remain on Hopper. Batch size cannot exceed Stacker pocket's maximum size.

● **How to set**

[1] Set Batch screen is generated by touching Batch button on the display of each mode.



(FIG 5-01)



(FIG 5-46)

[2] Can set on Set Batch screen (FIG -46).

- ① Batch off: Do not use Batch function.
- ② Stacker 1 and Stacker 2 Count Set: Set Batch number for Stacker 1 and Stacker 2 respectively.



(FIG 5-47)

- ③ Total Count: Set Batch number for Stacker 1 and Stacker 2 in total.



(FIG 5-48)

- ④ Total Amount: Set Batch amount for Stacker 1 and Stacker 2 in total.  
(The same as Dispense Mode from other models)



(FIG 5-49)

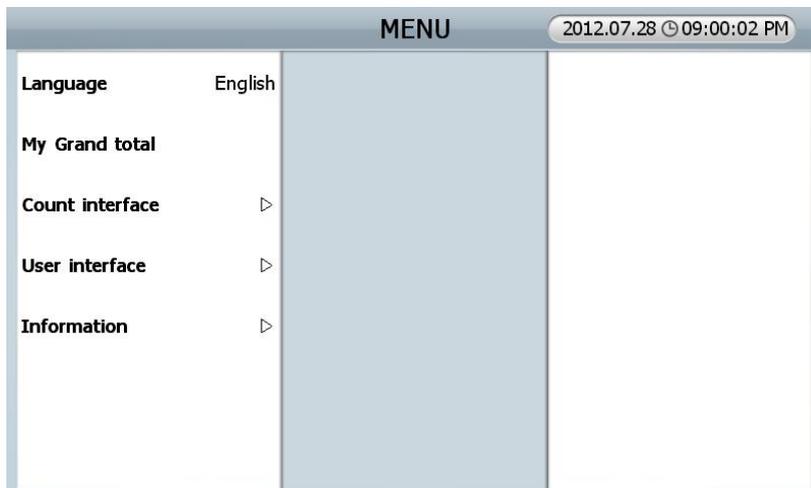
- [3] Change to the initial screen after Batch setting.

## 6 SET FUNCTION AND ITS PARAMETERS

SB-3000 has 2 kinds of Menu. One is a “User Menu” for user, and the other is “ADMIN Menu” for administrator.

### 6-1 USER MENU

Can alter each function and parameter. Push [MENU] key, user can move to “USER MENU” and its details by Touching the items.



(FIG 6-01)

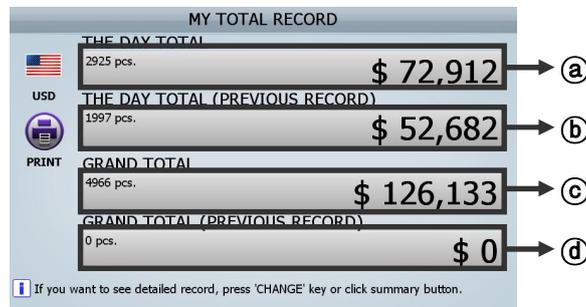
MENU	Sub Menu	Description
Language		Set a menu language
MY grand total		Checking of each User's GT
Count Interface	Start counting	Manual/automatic counting start
	Pocket capacity	Set “pockets’ capacity”
	Accept result	Set “Accept result”
	Print result	Set “Printing result”
User Interface	Touch calibration	Touch calibration for screen
	Set date/time	Set up date/time
	Selection way	Set up selection method
	Sorting order	Set up sorting order
	LCD brightness	Set up LCD brightness.

	Beep	Set up warning beep
	Power saving	Set up power saving
Information	About SB-3000	Set up SB-3000 inside.
	A/S call number	Check service call number.

In order to move on lower menu section, it's available with "Touch Screen" or [CHANGE] key, [START/STOP] key, and [C] key.

- **Language: Set up the language for Menu.**
- **My grand total: Instructing "The Day Total & Grand Total" of current user.**

[1] MY TOTAL RECORD (FIG 6-02)



**(FIG 6-02)**

[2] At "MY TOTAL RECORD", pressing [CHAGNE] Key consecutively, or touching each section of "total result", user can change 4 types of display.

- ① Touching "THE DAY TOTAL" section (Ⓐ), then moving onto "MY TOTAL RECORD \_ THE DAY TOTAL"
- ② Touching "THE DAY TOTAL (PREVIOUS RECORD)" section (Ⓑ), then moving onto "MY TOTAL RECORD \_ THE DAY TOTAL (PREVIOUS RECORD)"
- ③ Touching "GRAND TOTAL" section (Ⓒ), then moving onto "MY TOTAL RECORD \_ GRAND TOTAL"
- ④ Touching "GRAND TOTAL (PREVIOUS RECORD)" section (Ⓓ), then moving onto "MY TOTAL RECORD \_ GRAND TOTAL (PREVIOUS RECORD)"

[3] Can print out with pressing [PRINT]key or touching [PRINT] icon at each screen

**(Referring to page 26)**

■ **Count Interface**

1. How to start counting: User can set up the start manual or automatic.

Default is Automatic Counting Start

- 1) Automatic Counting Start:  (None)
- 2) Manual Counting Start: 



(FIG 6-03)

2 Pocket capacity: How to set up stacker capacity of each pocket.

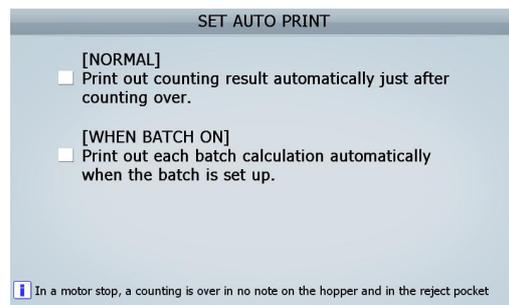
- 1) Stacker Pocket #1: Can be selected one of 100/150/200
- 2) Stacker Pocket #2: Can be selected one of 100/150/200
- 3) Reject pocket: Can be selected one of 50/70/100

3 Accept result: How to set up the “Accept” in order to sum counting result to “GT”.

- 1) Auto-accept: User can set whether automatic “Accept” or manual “Accept” after counting.
- 2) After-accept: User can set manual “Accept” after checking the counting result.
  - ① Only add Count-result to Grand-total
  - ② Add to Grand-total and print
  - ③ Add to Grand-total and print twice

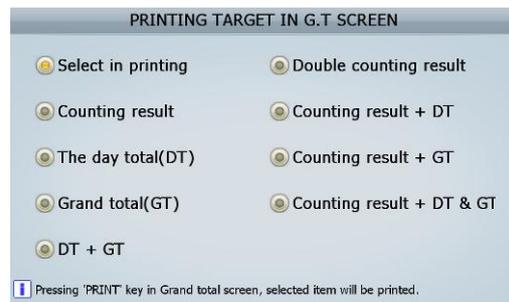
4 Print result : User can set up the printing out method after counting.

- 1) Auto-print: user can set automatic/manual print out.
  - ① Generally, print out the counting result automatically just after counting over.
  - ② In “Batch” function on, print out calculation automatically when the batch is set up.



(FIG 6-04)

- 2) Print mode: can set up a subject of printing out in Grand-total screen



(FIG 6-05)

■ User Interface

1. Touch screen calibration
2. Setting of date/ time
3. Selection method of items: can set up the Selection method of items.
  - ① Select an item at pop up lists.
  - ② Select next level of item without pop up.
4. Arrangement order: can set up the arranged values on screen by descending or ascending order
5. Screen brightness: Adjust LCD brightness
6. Sound: set up warning beep.
- 7 Power saving mode: Setting up power saving mode in idle time

■ Information

- 1 About SB-3000: Machine information
- 2 A/S call number: After Service call number

The Factory default settings are like below.

Function		Default Value
Speed		1000NPM (Fitness Mode: Approx. 700)
<b>[Count interface]</b>		
Starting counting		Auto
Pocket capacity	Stacker Pocket #1	100
	Stacker Pocket #2	100
	Reject Pocket	50
Accept result	Auto-accept	off
	After accept	Only add count-result to grand-total
Print result	Auto-print	off
	Print in GT	Select when printing
<b>[User interface]</b>		
Selection way		In list (On a pop-up menu.)
Sorting order		Ascendant
LCD brightness		30
Beep	Beep volume	7
	Warning on/off	On

	Button on/off	On
Power saving	Waiting time	10
	Saving type	Make the back-light of LCD darker

**6-2 ADMIN MENU (Administrator Menu)**

Can alter each function and parameter at this menu. Press [Mode] button and put [12345] in Password screen, and will be moved to [ADMIN MENU]. Touch the screen items, and can move to menus.



(FIG 6-06)

MENU	SUB MENU	Description
Loading default		
Change password		
Machine setting	Station ID	Set the ID number of machine
	Ethernet	Set up LAN
	Printer	Set up print
	Custom display	Set up customer display
Value setting	CF level	Set up CF notes' level
	Fitness	Set up Fitness function and Saved fitness level date in/out
Function on/off	CF items	CF item on/off
	Tape in count mode	Tape sensor on/off
User setting	Concurrent User	Set up concurrent user

	Setting place	Set up displaying location of counting user interface
Grand Total	Grand total type	Set up GT type
	Clear	Delete GT
	Initialize all	Initializing GT
	Summary	Check the summary of GT
	Each user	Check GT for each user
Log data	Export log data	

■ Loading default (Get back to initial condition)

All of parameters get back to initial setting of factory

■ Change passwords

Administrator's password can be changed at this menu.

In order to manage the result data and parameter in Admin Menu, strongly recommended to be accessed only authorized administrator.

**Thus it is recommended changing the initial password [12345] to specified password of its administrator.**

■ Machine setting

1 Station ID

The ID number of the machines will be printed out after setting up the ID number

2 Ethernet: Can set up Dynamic / Static IP address in LAN setting.

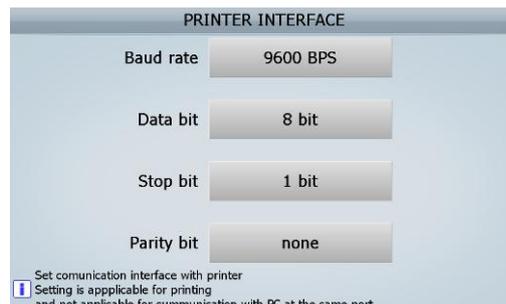
3 Print: Set up Print.

1) Interface

Administrator has to select a printer type before connecting the printer.

**Needs to be discussed with the dealer about available printer**

If, the printer type is Serial, the setting of printer in SB-3000 is like below.



(FIG 6-07)

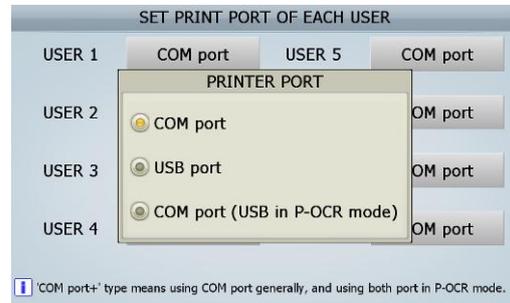
2) Cutting code

Can set up the Cutting code with reference the manual and it can apply up to 6 byte.

3) Each user

Set up printer ports for each user.

About COM port (USB in P-OCR Mode) means that generally COM port is used and USB ports are used at the same time in P-OCR mode.



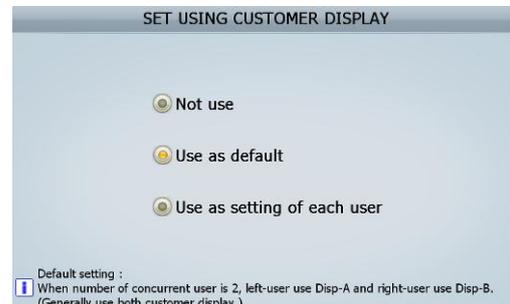
(FIG 6-08)

4 Customer display

Set up the Customer Displays to be connected to Display A/ B Ports.

- 1) Display A: Set up a Customer Display for Display A.
- 2) Display B: Set up a Customer Display for Display B.
- 3) Display to use: set up a using Customer Display.

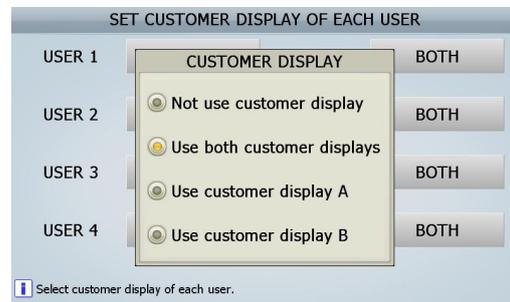
**Caution)** In case of set up concurrent user, Display A is for left user, and Display B is for right user. This is "Default setting," but user can set up the display for each user.



(FIG 6-09)

4) Each User

Set up the Customer display for each user.



(FIG 6-10)

■ Value setting

1. CF level

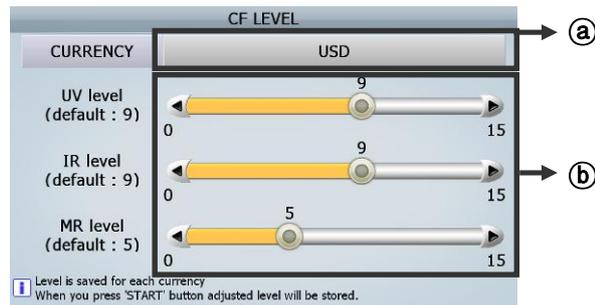
In this menu, user can set the levels such as UV (Ultra-Violet) Sensor, MR (Magnetic Reader) Sensor and IR (Infrared) Sensor required detecting each currency. The setting method is as follows.

**[How to set]**

[1] Select Currency. (a)

[2] Move each circle and set the levels (b)

- ① Move the circle of the first bar and set UV level.
- ② Move the circle of the second bar and set IR level.
- ③ Move the circle of the third bar and set MR level.



(FIG 6-11)

**(It is possible to set each level in detail by using “◀▶” key)**

[3] Press [START/STOP] Key to save the level.

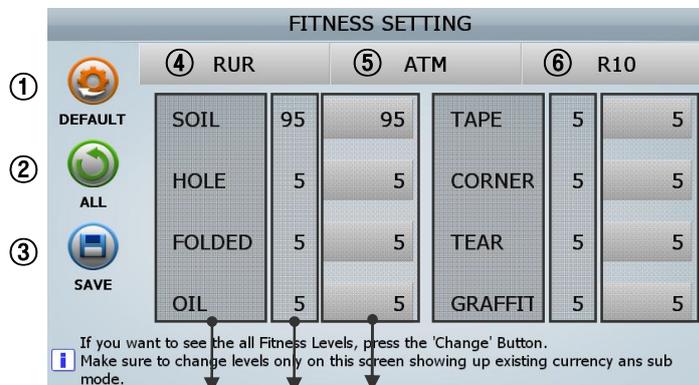
The lower number is less sensitive. If the machine detects CF note as real notes, increase level by one to set the level. If the machine detect real note as CF note, decrease level by one to set the level.

If the level is '0' (Zero), the sensor is deactivated.

2 Fitness setting

[1] Fitness parameter

In this menu, user can set fitness sorting level for each currency and each denomination.



(FIG 6-12)

- ① **[DEFAULT]**: Set Fitness value to the Default
  - [YES]: Apply to all Fitness Sub-mode
  - [NO]: Apply only to current Fitness Sub-mode
  - [CANCEL]: Do not apply
- ② **[ALL]**: Decide if the data below is also applied or not to another denomination.
  - Fitness Levels & On/Off set
  - Fitness Levels
  - Fitness On/Off set
- ③ **[SAVE]**: Save current setting (Currency, Fitness Sub-mode, Denomination)
- ④ **[CURRENCY]**: The current currency's displayed and if this is touched, another currency is set.
- ⑤ **[Fitness Sub-Mode]**: The currency Fitness Sub-Mode is displayed and if this is touched, another Fitness Sub-Mode is set.
- ⑥ **[Denomination]**: The currency denomination is displayed and if this is touched another denomination is set.
- ⑦ **[Fitness Sorting]**: Items for fitness are displayed.
- ⑧ **[Default]**: The default of each item is displayed.
- ⑨ **[Current value]**: The current value for each item is displayed/

[2] Import fitness level

[3] Export fitness level

Can put fitness level gotten from one machine into another machine by using Import fitness level menu and Export fitness level menu.

Please refer to the below to know how to do this.

Follow the below steps

- ① Insert USB Memory Stick to USB port in SB-3000
- ② Select 'Export fitness level' in this menu

**(ADIMN MENU \_ Value setting/ Fitness/ Export fitness level)**

- ③ Touch on [EXPORT] Icon. Then LCD will be displayed as follows



**(FIG 6-13)**



**(FIG 6-14)**

- ④ The file is created in USB memory stick.  
(File folder name: SB-3000\_Fitness\_Level)
- ⑤ Insert USB Memory Stick, which has 'SB-3000\_Fitness\_Level' folder, to another SB-3000 that supervisor want to input previously fitness level to.
- ⑥ Select 'Import fitness level' in this menu.

**(ADIMN MENU \_ Value setting/ Fitness/ Import fitness level)**

- ⑦ LCD of another SB-3000 will be displayed as follows

-1. After checking the file which you want to apply to another SB-3000. And then touch [NEXT] Icon



**(FIG 6-15)**

-2. Select the currencies and fitness Sub-Mode which supervisors want to apply to another SB-3000. And touch [IMPORT] Icon



**(FIG 6-16)**

-3. Finish



**(FIG 6-17)**

- ⑧ Finishes

■ Function on/off

1 CF Items

Administrator can set CF On/Off and can set sensors (UV, MR, IR) individually.



No	Sensors status	Indicator	No	Sensors status	Indicator
1	CF on (UV, IR, MR on)		5	MR off UV on, IR on	
2	CF off (UV, IR, MR off)		6	UV off, IR off MR on	
3	UV off IR on, MR on		7	UV off, MR off IR on	
4	IR off UV on, MR on		8	IR off, MR off UV on	

2 Tape in count mode

Can set Tape Sensor ON/Off here, except for Fitness Mode.

In case of Fitness Mode, should set Tape sensor in Fitness setting.

Tape function On, Tape indicator will be shown like right picture (FIG 6-18).



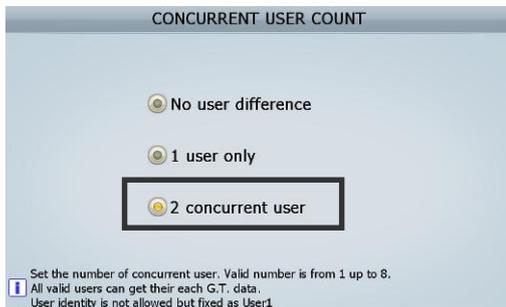
(FIG 6-18)

■ User setting

1 Concurrent User

2 users can user SB-3000 at the same time. This is how to set Concurrent User. Without selecting Concurrent User, 'USER 1' will be set.

Setting 2 Concurrent User, the initial screen will be shown like below right.



**(FIG 6-19)**



**(FIG 6-20)**

[1] USER 1 and USER 2 (a b) can operate SB-3000 at the same time in other modes.

User can select one of Concurrent User and can set Count modes and functions as one user does.

[2] One of Concurrent User (a b) can use the allocated Print Port. (Referring to page 48) and

Customer Display. (Referring page 49) If Concurrent User was set, the allocated Print Port and Customer Display will be shown in upper indicator.

[3] While the Concurrent User was set, if user touch the Concurrent User windows (a or b), USER SETTING will be activated and user can change the Concurrent User setting.

## 2 Setting place

This is how to set CUSTOMER DISPLAY and PRINT PORT.

- ① User can change user setting only in MENU.
- ② User can change user setting in menu and count screen.

## ■ Grand Total

1 Grand Total type: Can set Grand total restart.

- ① Can delete count record in ADMIN MENU.
- ② Count Record will restart every week (User should select the day, e.g. Monday.).
- ③ Count Record will restart every month (User should select the date, e.g. 15<sup>th</sup>.).
- ④ Count Record will restart every year on January 1<sup>st</sup>.

If the count record restarts, the counted record will remain as 'PREVIOUS RECORD.'

2 Clear: Can restart THE DAY TOTAL and GRAND TOTAL.

3 Initialize all: Can delete the record and make THE DAY TOTAL and GRAND TOTAL zero.

4 Summary:

Can check, delete and print the summary of THE DAY TOTAL and GRAND TOTAL.

[1] THE DAY TOTAL by currency:

Pressing [CHANGE] button, the currency will be changed.

THE DAY TOTAL REPORT			
	USD	CURRENT	PREVIOUS
PRINT	USER 1	84 \$ 2,610	2925 \$ 72,912
CLEAR	USER 2	0 \$ 0	0 \$ 0
CLR ALL	USER 3	0 \$ 0	0 \$ 0
	USER 4	0 \$ 0	0 \$ 0
	USER 5	0 \$ 0	0 \$ 0
	USER 6	0 \$ 0	0 \$ 0

If you want to see other currency, press 'CHANGE' key.  
Empty data will be omitted in printing.

**(FIG 6-21)**

[2] GRAND TOTAL by currency:

Pressing [CHANGE] button, the currency will be changed.

GRAND TOTAL REPORT			
	USD	CURRENT	PREVIOUS
PRINT	USER 1	5050 \$ 128,743	0 \$ 0
CLEAR	USER 2	0 \$ 0	0 \$ 0
CLR ALL	USER 3	0 \$ 0	0 \$ 0
	USER 4	0 \$ 0	0 \$ 0
	USER 5	0 \$ 0	0 \$ 0
	USER 6	0 \$ 0	0 \$ 0

If you want to see other currency, press 'CHANGE' key.  
Empty data will be omitted in printing.

**(FIG 6-22)**

[3] THE DAY TOTAL by user:

Pressing [CHANGE] button, the users will be changed.

THE DAY TOTAL REPORT			
	USER 1	CURRENT	PREVIOUS
PRINT	RUR	0 R 0	0 R 0
CLEAR	USD	84 \$ 2,610	2925 \$ 72,912
CLR ALL	EUR	0 € 0	0 € 0

If you want to see other user's record, press 'CHANGE' key.  
Empty data will be omitted in printing.

**(FIG 6-23)**

[4] GRAND TOTAL by user:

Pressing [CHANGE] button, the users will be changed.

GRAND TOTAL REPORT			
	USER 1	CURRENT	PREVIOUS
PRINT	RUR	0 R 0	0 R 0
CLEAR	USD	5050 \$ 128,743	0 \$ 0
CLR ALL	EUR	0 € 0	0 € 0

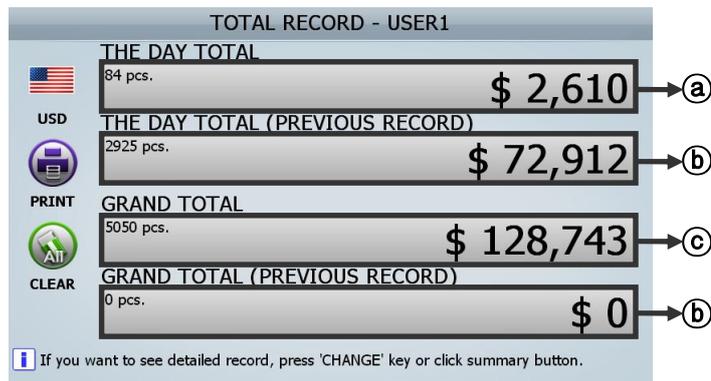
If you want to see other user's record, press 'CHANGE' key.  
Empty data will be omitted in printing.

**(FIG 6-24)**

5 Each user:

Each user can read, delete and print the present & previous THE DAY TOTAL and GRAND TOTAL.

- [1] the screen of TOTAL RECORD-USER1 DISPLAY is like below (FIG 6-25)



**(FIG 6-25)**

[2] If [CHANGE] button is pushed consecutively or if the section of the above screen is touched, the above screen is changed to 4 DETAIL screens.

- ① If the section (a) of the above screen is touched, the screen of 'The Day Total' screen as right will be changed.

**TOTAL RECORD - USER1**

**THE DAY TOTAL**

DENOM.	COUNT	AMOUNT
1 \$	0	0
2 \$	0	0
5 \$	18	90
10 \$	20	200
20 \$	16	320
50 \$	20	1,000
100 \$	10	1,000
Coin		\$ 0
<b>Total</b>	<b>84</b>	<b>\$ 2,610</b>

**USD**  
**PRINT**

**i** If you want to see detailed record, press 'CHANGE' key or click summary button.

**(FIG 6-26)**

- ② If the section (b) of the above screen is touched, the screen of 'The Day Total (Previous record)' as right will be changed.

**TOTAL RECORD - USER1**

**THE DAY TOTAL (PREVIOUS RECORD)**

DENOM.	COUNT	AMOUNT
1 \$	27	27
2 \$	135	270
5 \$	943	4,715
10 \$	810	8,100
20 \$	390	7,800
50 \$	200	10,000
100 \$	420	42,000
Coin		\$ 0
<b>Total</b>	<b>2925</b>	<b>\$ 72,912</b>

**USD**  
**PRINT**

**i** If you want to see detailed record, press 'CHANGE' key or click summary button.

**(FIG 6-27)**

- ③ If the section (c) of the above screen is touched, the screen of 'Grand total' as right will be changed.

**TOTAL RECORD - USER1**

**GRAND TOTAL**

DENOM.	COUNT	AMOUNT
1 \$	33	33
2 \$	216	432
5 \$	1631	8,155
10 \$	1435	14,350
20 \$	636	12,720
50 \$	337	16,850
100 \$	762	76,200
Coin		\$ 3
<b>Total</b>	<b>5050</b>	<b>\$ 128,746</b>

**USD**  
**PRINT**

**i** If you want to see detailed record, press 'CHANGE' key or click summary button.

**(FIG 6-28)**

- ④ If the section (④) of the above screen is touched, the screen of 'Grand total (Previous record)' will be changed.

TOTAL RECORD - USER1		
GRAND TOTAL (PREVIOUS RECORD)		
DENOM.	COUNT	AMOUNT
1 \$	0	0
2 \$	0	0
5 \$	0	0
10 \$	0	0
20 \$	0	0
50 \$	0	0
100 \$	0	0
Coin		\$ 0
Total	0	\$ 0

! If you want to see detailed record, press 'CHANGE' key or click summary button.

**(FIG 6-29)**

[3] In every screen, can print out the result by using [PRINT] button and [PRINT] ICON.

[4] In every screen, can delete the result by using [CLEAR].

■ **Log data**

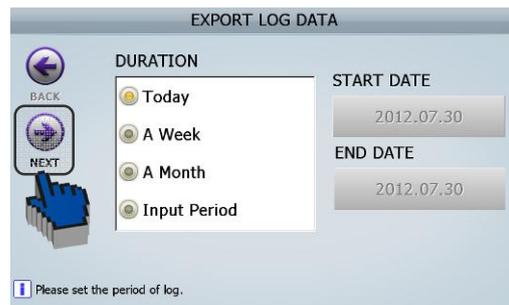
This mode supplies all Log DATA (Count Detail in Currency / Count Detail in User / ETC ) and provide exporting function to EXCEL file.

The procedure of Log Data Exporting is here below,

- ① Insert USB Memory Stick into the USB Port of SB-3000.
- ② Select 'Export log data' in this menu

**(ADIMN MENU \_ Log Data/ Export log Data)**

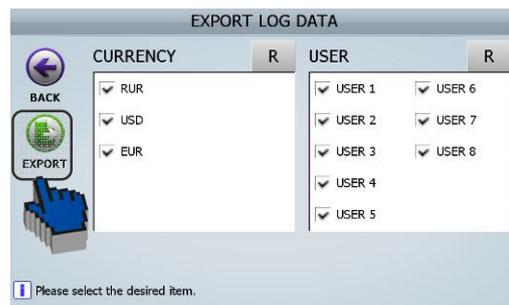
- ③ Select the Range of the Period.



**(FIG 6-30)**

- ④ Touch on [Next] ICON.

- ⑤ Select Currency and USER and Touch [Export] ICON.



**(FIG 6-31)**

- ⑥ In USB Memory Stick, Log DATA file will be created as right screen.



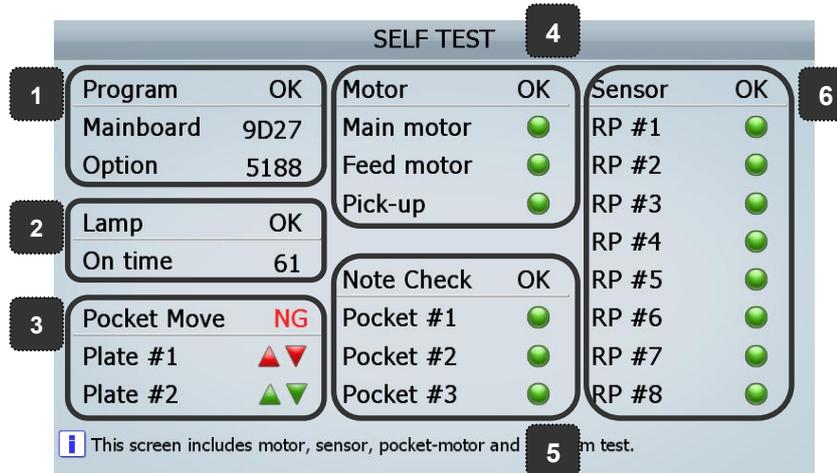
**(FIG 6-32)**

# 7 TROUBLESHOOTING

This chapter shows how to solve errors when the messages are on the operational window.

■ Initializing Running Error

When SB-3000 Power On, if there is any trouble at the sensors, pocket plates, motors and stackers and so on, it shows below figure **[MACHINE STATUS INFORMATION]**. Green means “OK”, Red Means trouble or suspect then required check sensors described following table.



(FIG 7-01)

No.	Error Messages	Action to be taken
1	Program NG	Contact to Dealer
2	Lamp NG	1. Check Rear (Top, Middle, and Bottom) Cover. 2. Check CIS(s) and its vicinity. 3. Facing continuous trouble, contact to Dealer
3	Pocket Plate NG	1. Check whether or not something is in the pockets 2. Check the Pocket Plates is down 3. Facing continuous trouble, contact to Dealer
4	Motor NG	1. Check whether opened or not Rear(Top, Middle, Bottom) Cover 2. Check amongst Rollers whether note(s) not 3. In case of “Feed Motor” NG, check whether note(s) or foreign substance on the Hopper Sensor
5	Note Check NG	1. Check whether note(s) not. 2. Cleaning required, in case of covering dust.
6	Sensor NG	1. Check the cover is open at the instructing point(s) 2. Check each RP sensor with opening its door. 3. Cleaning required, in case of covering dust.

■ Error on counting

It shows following figure [SB-3000 STAU], when any error occurs on counting



**(FIG 7-02)**

Error Messages	Action to be taken
Pocket Overflow!! Empty pocket - Remove banknotes in the pocket #1 - Remove banknotes in the pocket #2	1 Remove remaining note accordance with the guide on the display 2 Press 'C' button
Jam Occurred!! Remove banknotes from path. -Detected sensor ID of Jam: '1' ~ '8'	1 Remove remaining note accordance with the guide on the display 2 Press 'C' button
Cover Opened! Please Close Cover - Front cover - Rear-Top/ Middle/ Bottom cover	1 Close The Cover 2 Press 'C' button
Check Pocket!! - Remove Banknotes in the pocket #1 - Remove Banknotes in the pocket #2 - Remove Banknotes in the reject pocket	1 Remove remaining note accordance with the guide on the display 2 Press 'C' button
Check Hopper!! - Remove Banknote on the hopper	
Feeding error!! Remove notes from the hopper Main motor error!! Press 'Cancel' button Feeding motor error!! Press 'Cancel' button Motor error!! Press 'Cancel' button	1 Press 'C' button
Print error - Remove notes in reject pocket.	1 Remove remaining note in reject pocket 2 Press 'C' button
Pocket motor error! - Check pocket motor 1 - Check pocket motor 2	Contact to Dealer

**Notes: Please refer to the figures on 'Chapter 8' to see the position of the sensors and jam**

**8 MAINTENANCE**

1. Sensor cleaning.

SB-3000 is built in various sensors to detect the malfunction of the machine the status of the notes in the machine and to recognize the denominations of the notes. The sensors are very delicate and if they are not cleaned correctly everyday, this may take negative effect on the performance of the machine as well as cause the machine to malfunction

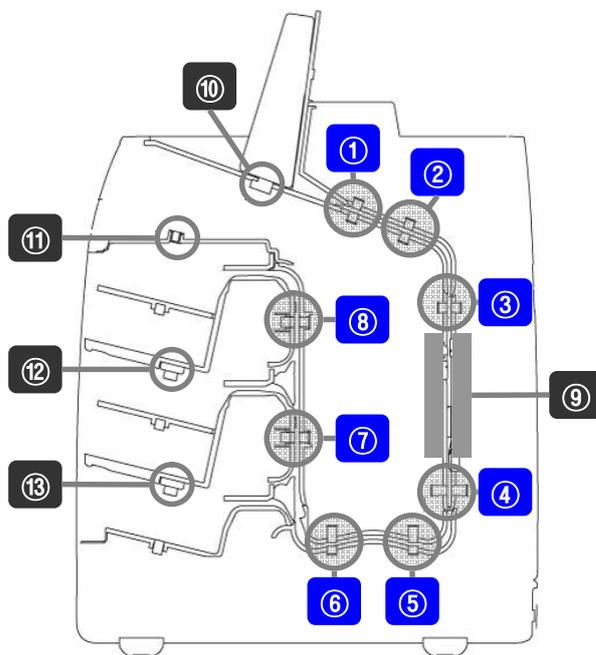
Clean the sensors as described below everyday after working.

**[WARNING]**



**TURN THE POWER OFF AND UNPLUG THE POWER CORD BEFORE CLEANING.  
DO NOT USE A VOLATILE SOLVENT FOR CLEANING.**

[1] appellation and location of each Sensor

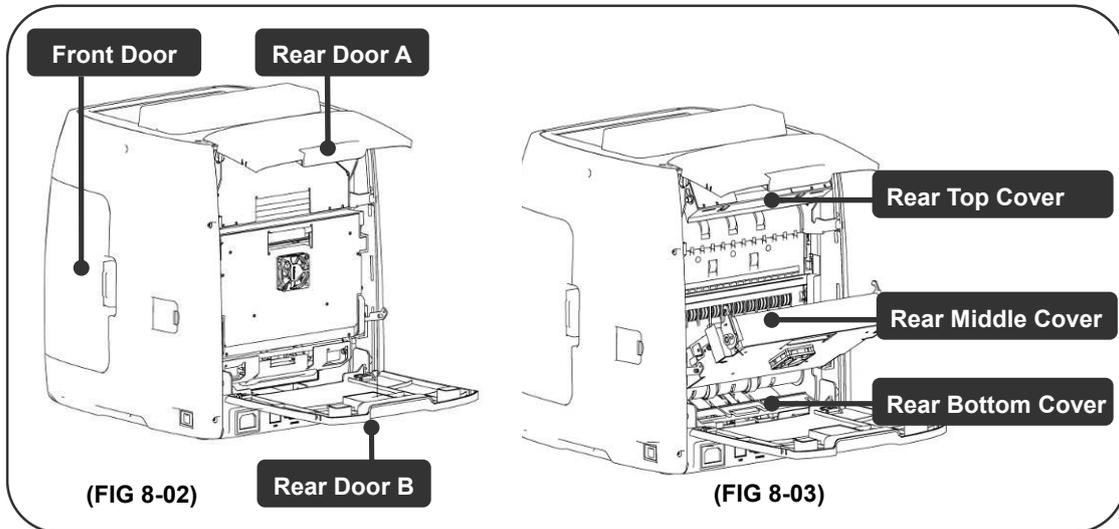


**(FIG 8-01)**

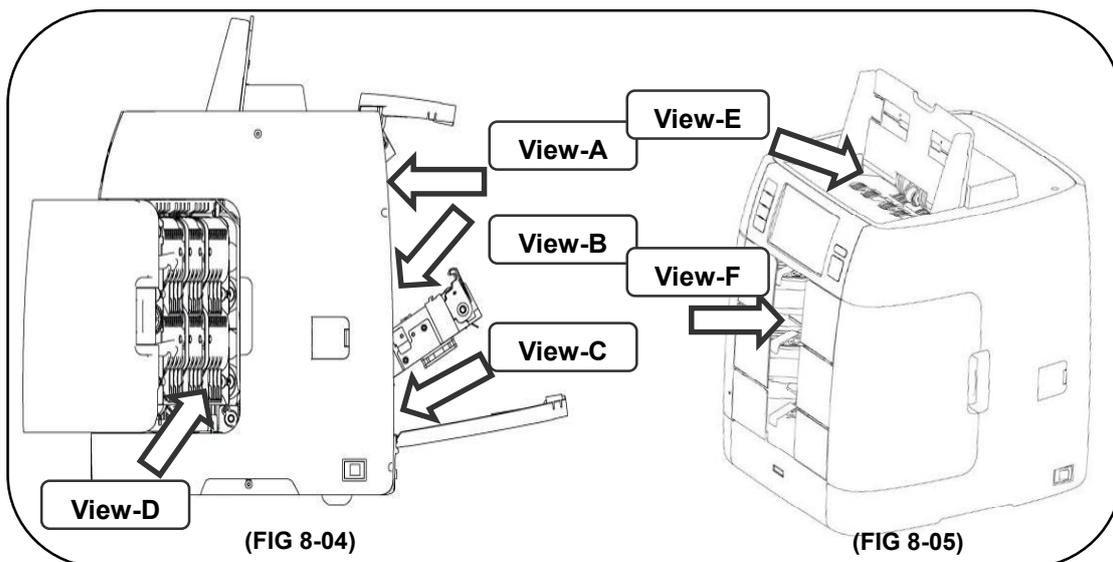
No	Description	Jam
1	RP1 Sensor	<b>Jam 1</b>
2	RP2 Sensor	<b>Jam 2</b>
3	RP3 Sensor	<b>Jam 3</b>
4	RP4 Sensor	<b>Jam 4</b>
5	RP5 Sensor	<b>Jam 5</b>
6	RP6 Sensor	<b>Jam 6</b>
7	RP7 Sensor	<b>Jam 7</b>
8	RP8 Sensor	<b>Jam 8</b>
9	CIS, Tape, MR, UV Sensors	
10	Hopper sensor	
11	Stacker 1 sensor	
12	Stacker 2 sensor	
13	Reject Pocket sensor	

[2] Cleaning direction of each sensor

① Particular appellation of each part



② View points



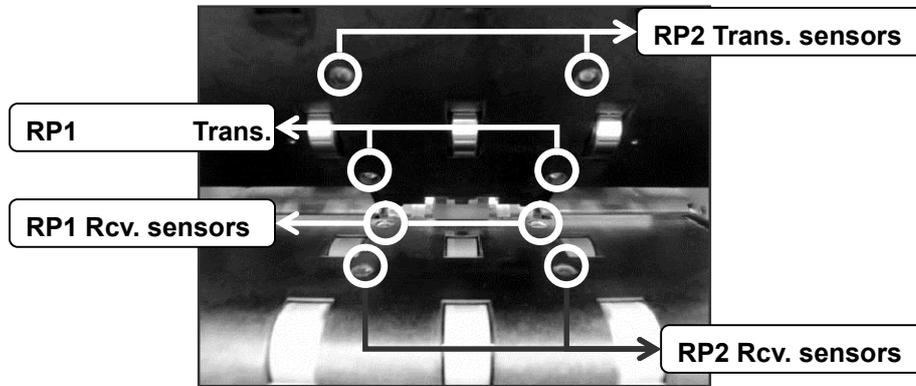
③ Accessible sensors in each view point

View	Accessible sensors	View	Accessible sensors
A	① RP1 Sensor	D	⑦ RP7 Sensor
	② RP2 Sensor		⑧ RP8 Sensor
B	③ RP3 Sensor	E	⑩ Hopper Sensor
	④ RP4 Sensor	F	⑪ Stacker 1 Sensor
	⑨ CIS,Tape,MR, UV Sensors		⑫ Stacker 2 Sensor
C	⑤ RP5 Sensor		⑬ Reject Sensor
	⑥ RP6 Sensor		

[3] Part to maintain

[VIEW A]

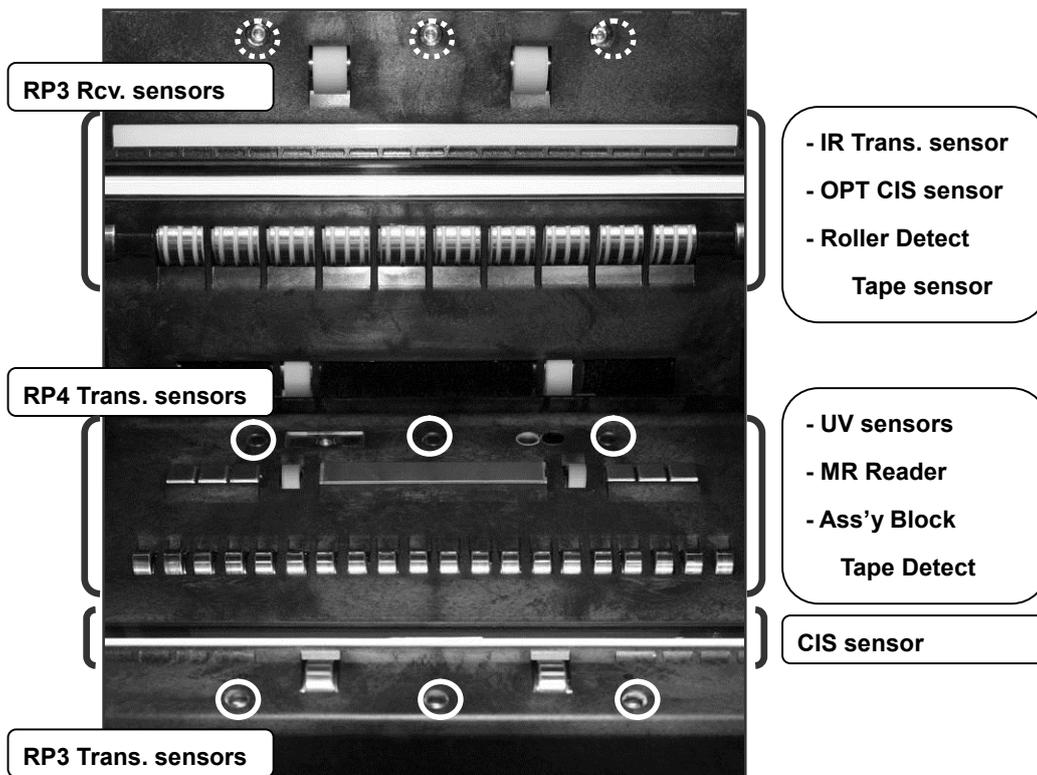
It's available to clean the Trans & Rcv sensors of RP1 & RP2 in View A



(FIG 8-06)

[VIEW B]

It's available to clean the Trans & Rcv sensors of RP3 & RP4, CIS, Optional CIS, Tape, MR, and UV sensors in View B

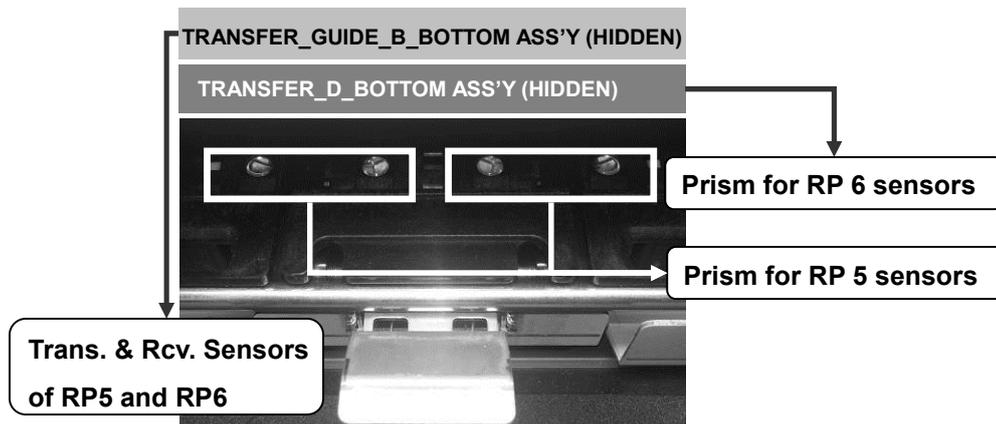


(FIG 8-07)

[VIEW C]

It's available to clean the Trans & Rcv sensors of RP5 & RP6 and Prism in View C.

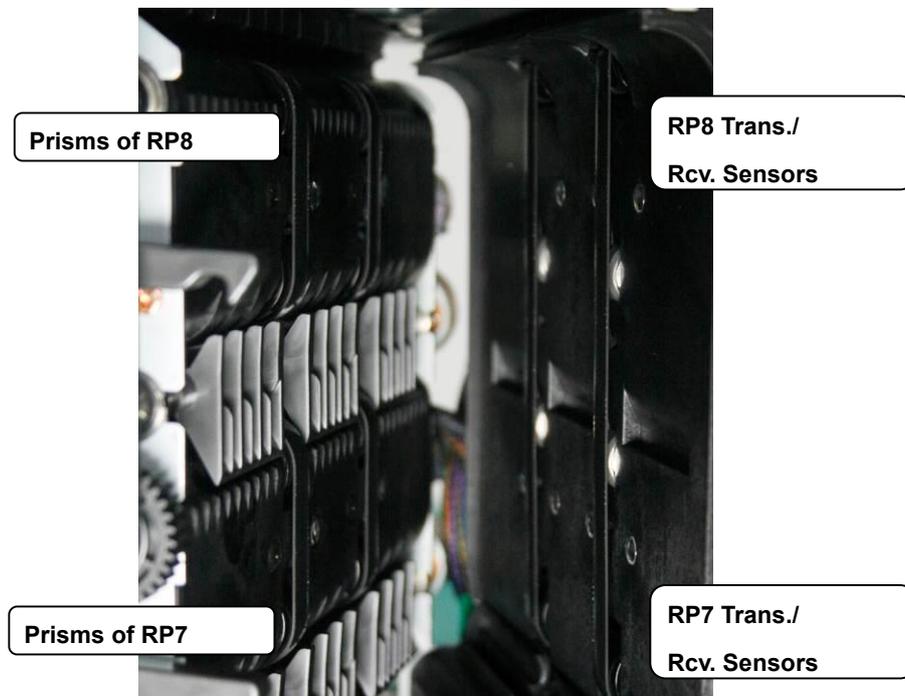
However, it is strongly required to clean the Trans & Rcv sensors and prism for RP6 using in cloth since they are located in the deep inside.



(FIG 8-08)

[VIEW D]

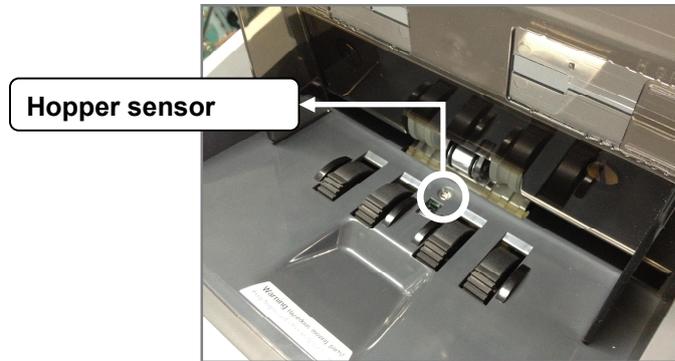
It's available to clean the Trans & Rcv sensors of RP7 & RP8 and Prism in View D



(FIG 8-09)

[VIEW E]

It's available to clean the Hopper sensor in View E.



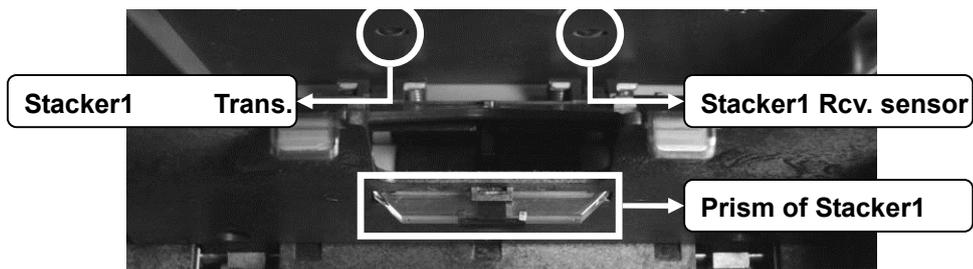
(FIG 8-10)

[VIEW F]

It's available to clean the Trans & Rcv sensors of Stacker1, 2, and Reject pocket, and also the Prism in View F

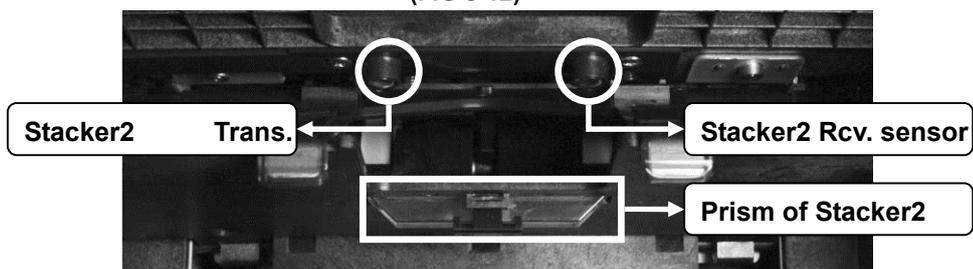
**Stacker 1**

(FIG 8-11)



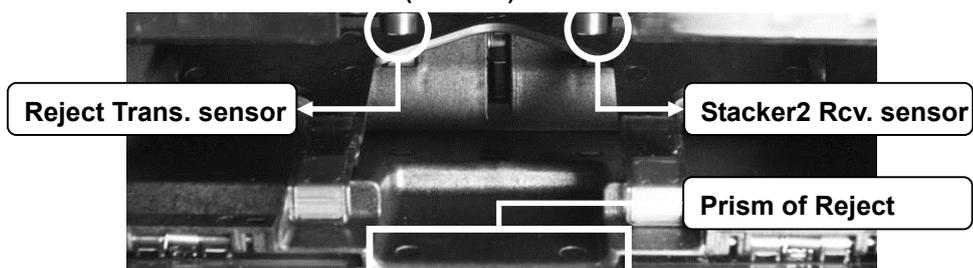
**Stacker 2**

(FIG 8-12)



**Reject Pocket**

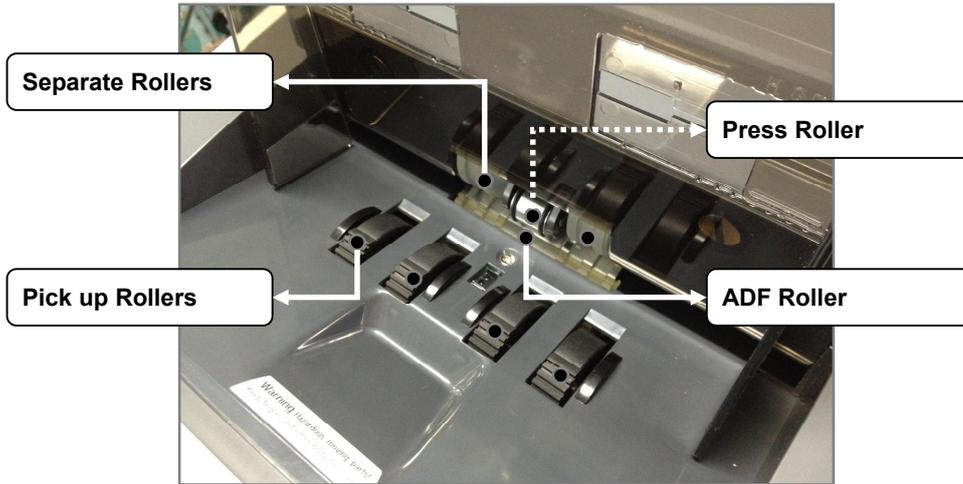
(FIG 8-13)



2. Cleaning Roller

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

Clean the rollers as described below everyday after working



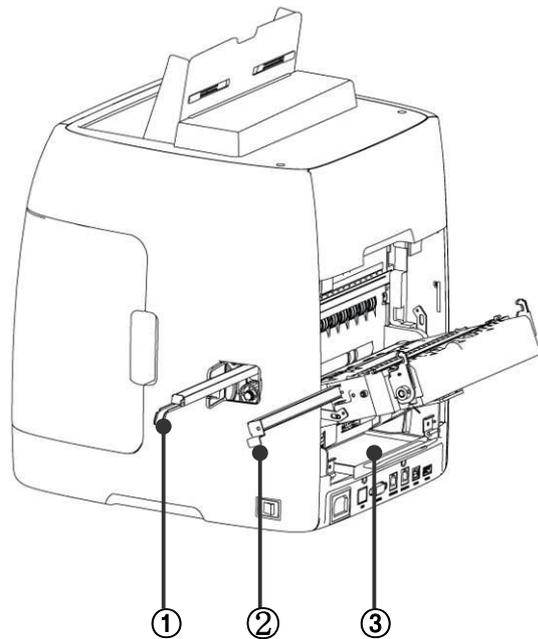
(FIG 8-14)

3. Cleaning Dust trap

SB-3000 is designed that prevents for Misrecognition and malfunction by 3 kinds of "Dust traps" at the locations on right figure. They collect dust when the machine is running.

As you see each location on right figure, it's required wiping off the dust with a cloth putting alcohol once a month.

- ① Dust Trap A
- ② Dust Trap B
- ③ Dust Trap C



(FIG 8-15)

**9**
**SPECIFICATION**

Item	Unit	Specification
Size (W x D x H)	mm	306[W] x 334[D] x 380[H]
Weight	Kg	Approx. 20
Hopper capacity	Notes	MAX. 700
Stacker1 capacity	Notes	100 [Max.200]
Stacker2 capacity	Notes	100 [Max.200]
Reject pocket capacity	Notes	50 [Max. 100]
Display Type	Dot	800 x 480 Color LCD
Connectivity interfaces		3 RS232C Port(9 Pin D-SUB & 2 Modular Jack), 2 USB(Type A & Type B), LAN, Micro SD
Currencies available		1~15 ( Available up to 15)
Banknote size range	mm	W: 100 ~ 185, H: 60 ~ 90
Banknote thickness range	mm	0.08 ~ 0.12
Counting Speed	Notes/min	Approx. 700/1000
Working Mode		FITNESS / COUNT/ FACE/ ORIENT/ ISSUE/ DISPENSE/ OCR
Preset Batch Number		1 – 200
Counterfeit Detection		MR-Array, MG, IR, UV
Power Requirements		100-240V~, 50~60Hz
Power Consumption	W	Standby:16, Operation: 120
Operational requirements		10~40deg/ 0~85%RH (Non Condensing)

**Notes:**

- This machine 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.

**Memo**

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