

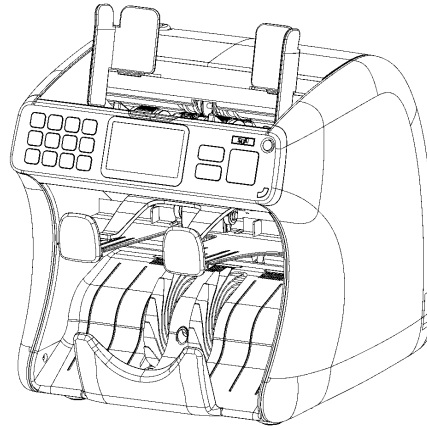


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# Operator's Manual V.1

## MiB-9 Currency Discriminator



## 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. Power stripe must have surge protector or anywhere machine is connected to.
- 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, shut off the machine and unplug immediately and contact the gas company or provider immediately. A small electrical spark in the machine could cause a fire or explosion.

## Safety Notes

MiB-9 Currency Discriminator machine and accessories provided passed strict safety requirements including FCC approval, the European safety agency 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



## **Safety Precautions**

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

1. Never push objects of any kind onto your machine through the case or cabinet openings.
2. Do not use your machine near water, in any wet environment, or outdoor.
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 of AMROTEC® or AMROTEC® Authorized service provider.
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.

## **FC** Compliance Statement

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

1. **THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND**
2. **THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIREED OPERATION.**

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**Unpacking List**

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

**Choosing a Location**

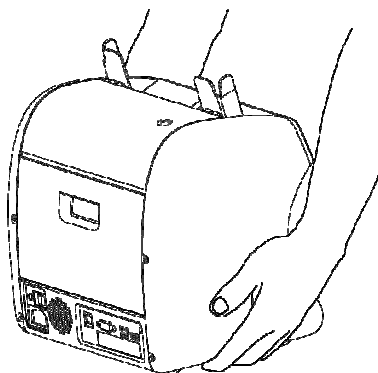
To ensure trouble-free operation of your machine, place it on a flat, stable surface near your workstation.

Do not place your machine:

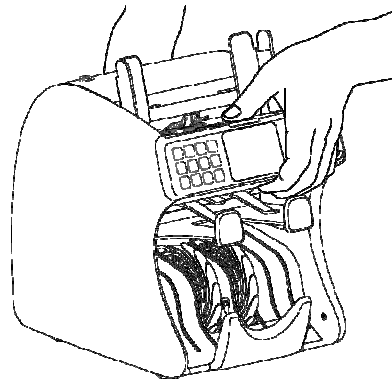
- In direct sunlight.
- Near heat sources or air conditioners.
- In dusty or dirty environments.

**Handling the Machine**

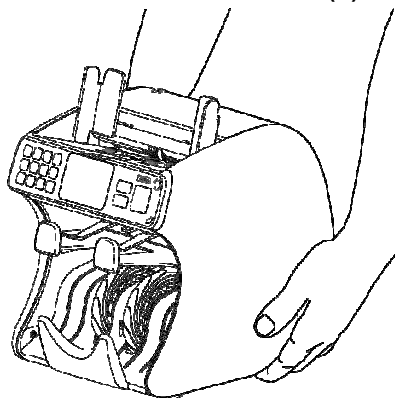
When handling or moving the machine, do not lift with grasping the Reject Pocket. The picture shows how to lift the machine correctly. Please refer to the pictures on the next page.



(X)



(X)



(O) Correct way to lift the machine



## Setting Up Your Machine

### Power Cord

Plug one end of the cord into the rear side of the machine and the other end into a standard AC power outlet with a surge protector.

If you turn on the power switch, the machine will display software version and checksum on the screen. A service call number (A/S NO,) will also display if your service provider stored an A/S call No. on the machine memory.



### Printer

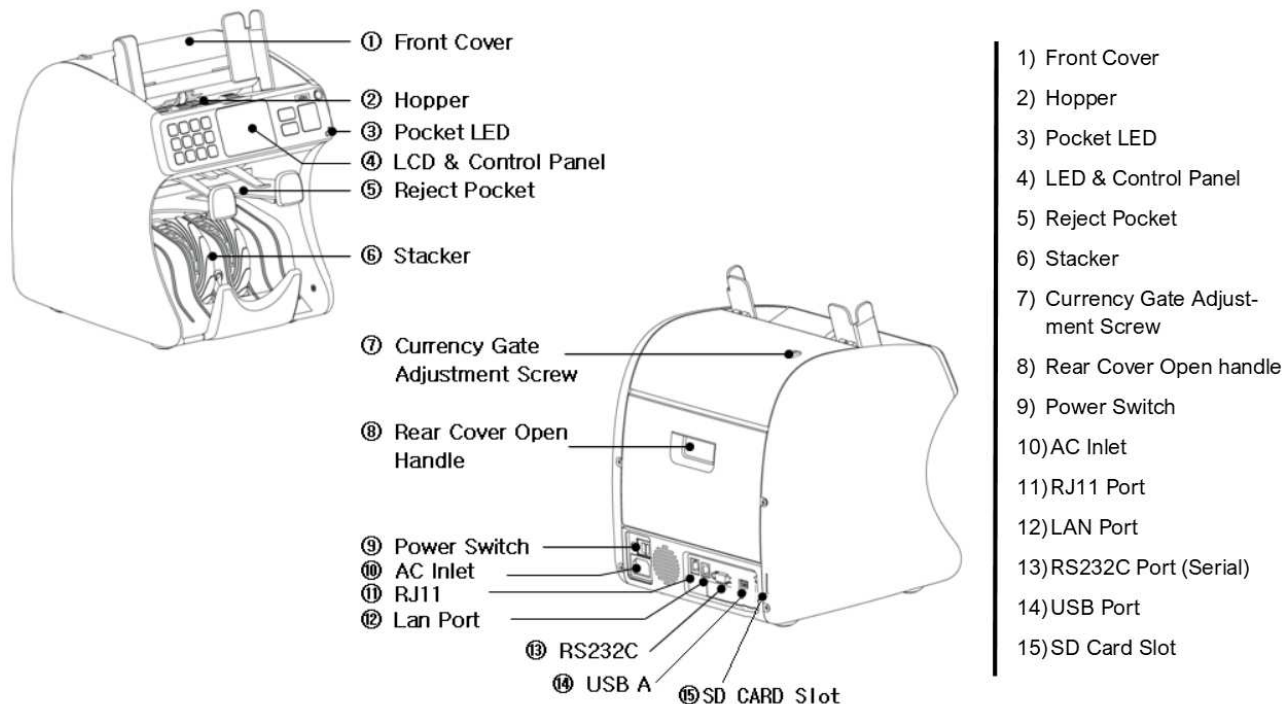
MIB-9 machine has a RS232 serial interface port which allows operator to connect an external printer (only those are recommended by AMROTEC®) to print out counting result. To connect printer to the machine, follow the steps below:

1. Make sure that both the MIB-9 and the Printer are turned off.
2. Plug the cable of printer into the serial port of MiB-9.
3. Turn on the printer and then MiB-9.

#### CAUTION

If wrong port is used to connect your Printer, turn off MiB-9 immediately to avoid electrical shock. Turn on the machine only after correct Port is connected to the Printer.

## 2 Description of the Parts



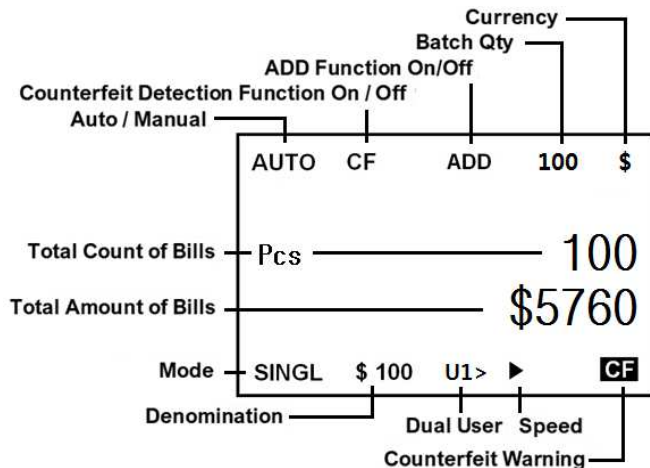
### 3 Overview of Control Panel



<b>\$ ↔ €</b>	Select Currency	<b>▲</b>	Up (toggle or switch to User1 or User2)
<b>ADD</b>	Accumulated Count On/Off	<b>▼</b>	Down (toggle or switch to User1 or User2)
<b>CF</b>	Counterfeit Detector On/Off	<b>MODE</b>	Change Counting Mode (Ch. 6)
<b>BATCH</b>	Batch/DB function On/Off	<b>DISPLAY</b>	Change Display / View screen (Ch. 6)
<b>DENOM.</b>	Select a denomination	<b>START/ENTER</b>	Confirm / Counting Start (manual mode) / Enter / Stop key / Transmit data or Print (In Dual User mode)
<b>5 (START)</b>	In dual-operator mode:  Counting Start (manual mode) /  Stop key / Transmit data or Print	<b>C</b>	Clear Errors / Cancel Input
<b>PRINT</b>	Printing count results to a printer	<b>LED INDICATOR</b>	If banknotes delivers to Reject pocket, indicator LED will be lit on.
<b>GT</b>	Grand Total Display		
<b>MENU</b>	Change settings or parameters		

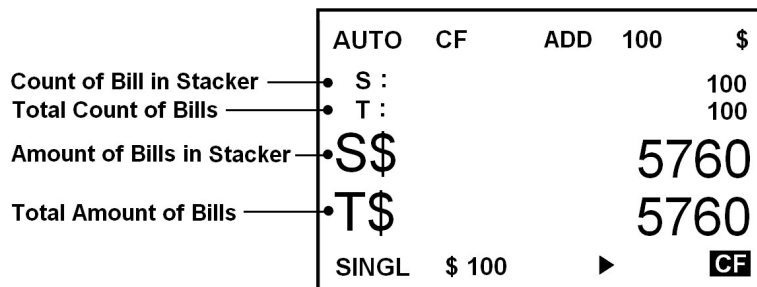
## 4

## Overview of Display (LCD)



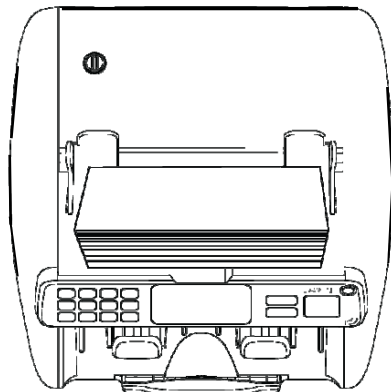
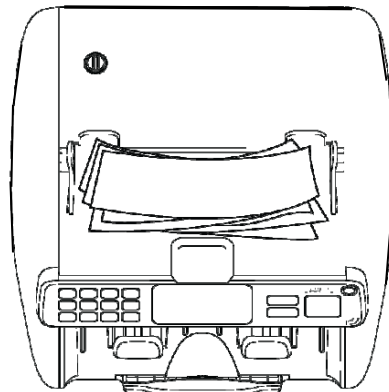
Amount Display (Simple View1)

Amount Display (Detail View)



**Placing Bills onto the Hopper**

It is very important to place your bills into the hopper correctly because recognition performance of the bills is highly affected by the arrangement of the bills. The number of rejected bills may increase if they are not arranged and placed correctly. Refer to the pictures below for the correct placement of bills into the hopper:

**Good****Bad**

Please avoid counting damaged and unfit bills, such as wet, excessively dirty, spoiled, folded, curled notes and attached with foreign material like clips, bands, etc. If such, machine may malfunction or get jammed.

## Counting

In AUTO mode, the machine starts counting banknotes automatically if it detects the existence of any bill in the hopper.

In MANUAL mode, the machine counts banknotes only if banknotes are placed into the hopper and START key is pressed. While counting, the machine displays the number of the banknotes on LCD screen and it stops working if it meets any of the conditions describe at below;

- No banknotes in the hopper
- Stacker pocket is full.
- Reject pocket is full.
- The number of banknotes counted is the same as the pre-set batch number set in BATCH mode.
- Errors have occurred.

If an error occurs during counting operation and the machine stops, an error message will display. To clear the error, press “**C**” key. The machine will try to clear the error automatically, but if it fails to clear the error or in case of a machine jam or some other mechanical errors, carefully open the front or rear cover to remove the jammed banknote(s) and close the cover correctly. Then press the CLEAR key again to clear error message.

### STOP during OPERATION



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

To restart, press CLEAR button.

### Selecting Counting Mode

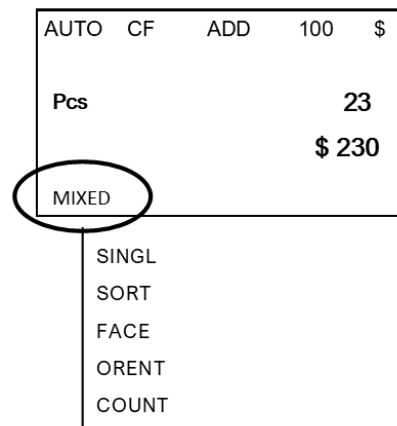
There are three main counting modes on this machine: MIXED, SINGLE and COUNT. Furthermore, the machine provides the facilities to align banknotes with same face or same directions. For details, please refer to “Facing Mode” and “Orientation Mode” as described below.

Each time operator presses the MODE key, the counting mode changes in sequence as illustrated below:

**MIXED → SINGL → SORT → FACE → ORENT → COUNT**

#### ■ Mixture mode (MIXED)

In Mixed mode, the machine counts and denominates mixture denominations of banknotes. If the denomination of a banknote is successfully recognized, then the banknote delivers to the Stacker Pocket. If the machine fails to recognize a banknote or determines to be a suspect note (if CF is ON), the banknote will then deliver to the Reject pocket. To change into the MIXED mode from other Modes, press MODE key until “MIXED” is displayed on LCD screen display.

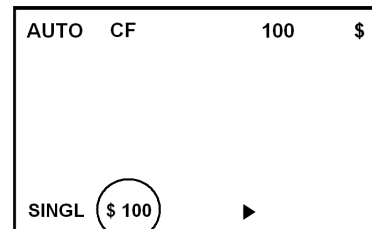


### ■ Single mode (SINGL)

In Single mode, the machine sorts out banknotes according to the selection of denomination by operator. All mismatch banknotes then deliver to the Reject pocket. To select a denomination to sort, press DENOM key. The selected denomination will be displayed on the display screen. For example, in case of US dollar, each time operator presses DENOM key, the denomination changes sequentially:

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 recognized banknote and sets it as the selected denomination to be counted and sorted. Selected denomination under D.D cannot be changed while the Input Hopper or the output Stacker contains banknotes. When output Stacker and the input Hopper are emptied out, the machine will repeat the process on the next trial and sorts banknotes accordingly.



Pre-set Denomination

### ■ FACE mode (FACE)

Each banknote has 2 faces defined as front face and rear face. If front and rear face of banknotes of a single denomination are mixed in a bundle, the machine sorts and delivers front face to Stacker and rear face to Reject pocket along with non-recognized banknotes. To identify if any non-recognized banknotes in Reject pocket, press the [Display] key three times.

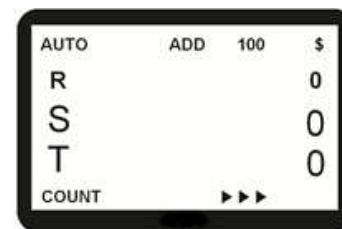


### ■ Orientation mode (ORENT)

The face of each banknote has 2 orientations → Up and Down. After operator sorts out front face and rear face of banknotes of a single denomination in a stack, operator can also separate banknotes by sole orientation by using this mode. Within this Mode, machine delivers banknotes with Up orientation to Stacker and banknotes with Down orientation to Reject pocket along with non-recognized banknotes. To identify if any non-recognized banknotes in reject pocket, press the Display key three times.

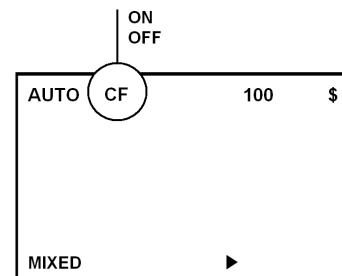
### ■ Count mode (COUNT mode)

In Count mode, the machine counts banknotes by its pieces without denominating a denomination and denomination value. To change to Count mode, press MODE key until “COUNT” is displayed on the LCD screen. Display shows counted pieces for Stacker (S), Total (T) as well as qty of Rejected banknotes for various reasons.

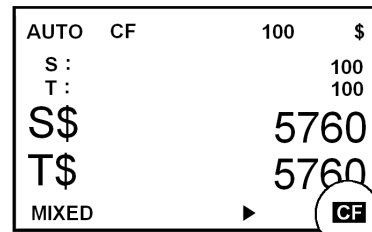


### CF (Counterfeit) Detector On/Off

Operator can turn On / Off CF detection by pressing CF key. If “CF” appears on LCD screen, it means the counterfeit detection function is activated.



If a banknote is determined as suspect, CF sign indicates on LCD screen as illustrated below and the banknote then delivers to the Reject Pocket. In addition, the machine beeps warning sound once counting is completed. The CF sign disappears when the Reject Pocket is emptied out.



Counterfeit Warning Sign

### **ADD (Accumulation) On/Off**

To turn On/Off ADD function, press ADD key. ADD function accumulates a single deposit count (a stack) or multiple deposit counts (multiple stacks), if activated. For example, if ADD is turned On, the counting result of a stack count added to the next stack count and accumulated to the total count. It is a useful function when an operator has to count lot of Stacks of banknotes and accumulates them to Total count or Grand total.

### **BATCH On/Off**

To turn On/Off BATCH function, press BATCH key on the control panel. Display will show 100 as default batch setting. To enter a variable batch number (1-200), use numeric keys (0-9) on the keypad and then press START / ENTER key on the right side of the control panel to confirm the input. While in batch mode, the machine halts when the number of counted bills reaches to preset batch number, even though more banknotes may still remain in the Hopper. To deactivate the batch function, simply press BATCH key. Operator's preset batch number will disappear from the LCD screen ensuring deactivation of the batch function.

**Each Denomination associated Batch function (DB)** is available with 'SINGLE', and 'SORT' modes and can be activated or deactivated by pressing [BATCH] key. This is how they are organized: By pressing Batch key in SINGL, or SORT, batch function will be changed as:

**➔ 100 (or preset batch 1-200) ➔ DB ➔ All Batch Off ➔**

Once Batch Key is pressed second time, "DB" message will be displayed on LCD ensuring activation of denomination batch function. If DB is selected, machine will count and batch the desired denomination by pre-set batch number for each denomination. For further information on how to set up DB (Denomination Batch) setting, please refer to **8.SET SPECIAL FUNC. ➔ 4. DENOM BATCH SET at page 44.**

### **Changing Display Contents**

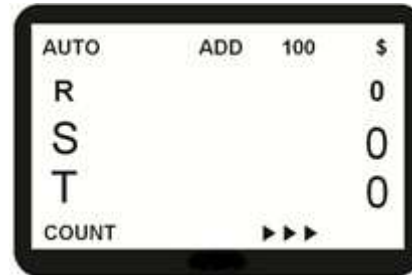
The MiB-9 machine provides various information regarding counting results. Continue pressing DISPLAY key to change screen and view various counting results. There are 5 views under this DISPLAY function:

- Simple View (Amount & piece Display)
- Piece Display in count mode
- Detail View (Amount & piece Display)
- Piece View (Detail) in count mode.
- Reject Reason view.

Below are some examples of screen of each Display mode.



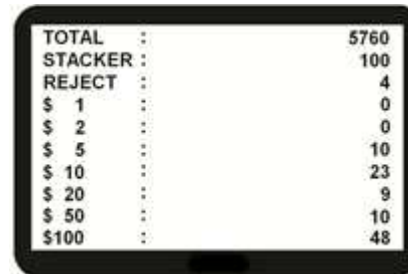
Simple View1 (Amount & piece Display)



Piece Display only in Count Mode



Detail View (Amount Display & piece Display)



Piece View (Detail)

To elaborate further, the Reject Reason View screen shows the reasons of the rejected banknotes. The first banknote was rejected by the reason of NO I.D (not recognized or Not identifiable) and the second banknote was rejected by the

reason of SUSPECT, etc.

#### **SUMMARY of the REJECT REASONS**

NO I.D.	: The banknote is not Identifiable or not recognizable.
NO READ	: The banknote was not successfully read.
OVERRUN	: The next note was fed too close to the first note.
CF	: The banknote is determined to be suspect.
STAY NOTE	: The banknote was mismatched with sorting criteria.
DOUBLE	: More than two pieces of notes were fed into machine.
CHAIN	: Chain Error [Check the reject qty on Reject Pocket].
HALF	: Half Error [Check the reject qty on Reject Pocket].

#### **REJECT REASON**

**1 : NO ID**  
**2 : CF**  
**3 : OVERRUN**  
**4 : NO READ**

Reject Reason View

#### **Grand Total**

Current Stacker amount represents total deposit counts on each run and Grand Total is accumulation of total deposit counts. In order to accumulate deposit total into Grand Total, PRINT function must be used after each deposit run. With each printing of counting results by pressing PRINT key, machine stores the value and added to Grand Total automatically. As a result, the machine displays the number of deposit and G. TOTAL on the screen if GT Key is pressed. Even when a printer is not connected, this accumulating

<b>AUTO</b>	<b>CF</b>	<b>100</b>	<b>\$</b>
<b>CURRENT STACKER</b>			
<b>\$</b>			<b>100</b>
<b>GRAND TOTAL</b>			
<b>\$</b>			<b>100</b>

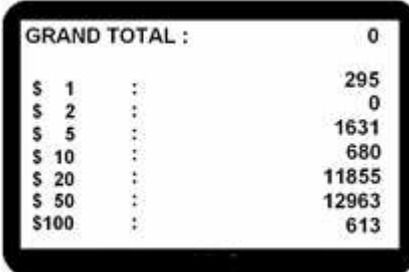
Grand Total View

operation will be done if PRINT key is pressed after each deposit count because MIB-9 does not check whether a printer is connected or not in order to perform this operation.

The Grand Total is managed separately in MIXED and SINGL mode, thus there are two Grand Totals. You can only see one Grand Total at a time: i.e., in SINGL mode, the display will show only Grand Total for counts using of SINGL mode.

If operator to check the Grand Total details, press GT key followed by DISPLAY key. To clear the G. Total, press “C” key. When Grand Total is cleared, the printing sequence number is also reset to “1”. To exit from

Grand Total Display mode, press GT or START/ENTER key.



GRAND TOTAL :			0
\$ 1	:		295
\$ 2	:		0
\$ 5	:		1631
\$ 10	:		680
\$ 20	:		11855
\$ 50	:		12963
\$100	:		613

Grand Total Detail View

### CAUTION !

- GT function cannot be activated if ADD is turned On. Please turn off the ADD function to use GT function.
- In Dual-User Mode (if activated), GT cannot be functional.
- If the currency is changed to another, all stored Grand Totals will be erased.

## Selecting Currency

The machine can be configured with several currencies software if additional software (optional) is purchased. To change currency from one to another, press Currency key (i.e., \$ ↔ €) on the control panel. If end-user requires additional currencies software than the standard USD and Canadian software, please consult with your sales representative / vendor or service provider.

## Dual-User

Dual Operator feature allows two operators to share one MIB-9 machine by taking turn while maintaining their own setting preferences. The results will not interfere with activities of each users. At the end of counting operation, the counting results for both operators are saved separately. To activate Dual-User Mode, enter MENU and follow:

**[MENU] → [4. Settings] → [7. Dual User] → Dual User ON / OFF**

In this Dual-User operation,

- 1) Use arrow keys UP▲ / DOWN▼ on the Control panel to change from User1 to User2 and vice-versa. LCD Display screen will show which User is currently activated by showing U1➡ or ◀U2.
- 2) Both users share the same MODE, CURRENCY, BATCH AND CF keys to operate the machine and able to designate different station IDs (See Menu item "7.Parameter" ➡ 3. SAVING USER at page 40).
- 3) PRINT key and its printing function is replaced by the numeric 5 ("START") key on the left for User1 and START/ENTER key on the right for User2 to print each of their counting results after a count is completed.

4) Each operator can accumulate their counting results and obtain own Total count by utilizing ADD key, however, once counting results are printed out by utilizing of numeric 5 ("START") for User1 and START/ENTER key for User2, ADD function turned off automatically.

Further, in Dual-User mode, different interface ports located at the rear side of the machine are configured as below:

“Single” or ‘Dual User’ Setting	Communication ports				Remark
	RS232C	USB	LAN	RJ11	
1. Single user operation	Printer *1)	USB Stick)	PC	Customer Display unit	USB Port is only used for inserting USB stick for software upgrade.
	PC *1)	-	PC *2)		*1) *2) To print or Transmit data to PC, press PRINT key
2. Dual Operator On (Dual user operation)	Printer / PC (User1 or 2) *3)		PC (User1 or 2) *4)	1 Customer Display Unit can be connected	To transmit data to PC: *3) User1 uses ‘START/ENTER’ key *4) User2 uses numeric ‘5’ key

(See Menu item 4. SETTING in Chapter 7 and submenu “8.DUAL USER SET” at page 34).

\*\*\* Specifications above may change without prior notice. Interface software integration must be done by third party software developer.



### Manual Entry: (for non-recognized genuine banknotes in Reject)

Manual Entry is a function designed for trained operator to add quantity and value of non-recognize genuine banknotes (those are rejected to Reject Pocket) to running total during a count operation. There is no menu to enter to use this function. Once a count operation is completed and operator desires to enter those genuine rejected / unrecognized banknotes into running total, press **[DISPLAY]** key on the control panel twice and operator is able to enter quantity of a particular banknote denomination into the denomination

DENOM	QTY		TOTAL
\$1	10		10
\$2	0		0
\$5	21		105
\$10	0		0
\$20	2		40
\$50	0		0
\$100	0		0
TOT. (A)	33	\$	155
TOT. (B)	1	\$	5
(A)+(B)	1	\$	160

table using of (↑)(↓) key or numeric key and once done, press START/ENTER key to confirm your input. Manually entered qty and value of the banknotes will then be added to the running total and display on the print receipt on a separate row under **TOT.(B)** as illustrated here.

REJ	1	COUNT	33
AMOUNT			155

\$	1	10 (00)	10
\$	2	0 (00)	
\$	5	21(01)	105
\$	10	0(02)	
\$	20	2(00)	40
\$	50	0(00)	
\$	100	0(00)	

1 pc of \$5 rejected and entered manually. See

Print report for clear understanding.

**USER MENU**

To set a function and its parameters, enter USER MENU by pressing MENU key on the Control Panel. The 'USER MENU' screen is shown in exact at the right side.

Press UP▲ / DOWN▼ key to move from one menu item to the next followed by START/ENTER key on the right side of the Control panel to confirm the selection or you can directly move from one menu item to the next by pressing corresponding numeric key. For example, to move to menu item "SETTINGS", just press numeric "4" key and START/ENTER key to confirm the selection. Press MENU key to return to MENU from sub-menu or press "C" key to entirely exit from the Menu, sub-menu and return to main screen. The factory default settings are set up as below:

**USER MENU**

1. LANGUAGE SET
2. COUNTING SPEED
3. POCKET CAPACITY
4. SETTING
5. INTERFACE
6. SENSITIVITY SETTING
7. PARAMETER
8. SET SPECIAL FUNC.

Function/Parameter		Default Value
Speed		1000 NPM    w/ CF ON
Contrast of Note		Normal
Beep		On
Auto Start		On
Mode Lock		Off
Pocket Capacity	Reject Pocket	100 notes
	Stacker	200 Max
Interface	Baud	57600
	Data	8
	Stop	1
	Parity	None

\*Factory settings are subject to change without prior notice.

## 1. LANGUAGE SET

From the USER MENU, operator can select their native language if it is available and listed on the sub-menu. Default is set as English language for USA market.

## 2. COUNTING SPEED

From the USER MENU, operator can select the piece counting “SPEED” by pressing numeric 2 key or UP / DOWN key.

⇒The machine offers five counting speed: 800 / 900 / 1000 / 1200 / 1500 NPM (Notes per Minute). In sub menu, press corresponding numeric key or UP / DOWN key to select your desire speed confirmed by START/ENTER key. In COUNT mode, you can set the speed up to 1500NPM maximum, but for all discriminating Modes, such as MIXED, SINGL or SORT modes, machine speed is defaulted as 1000 (CF ON) or can be change to 1200 (CF Off).

Please refer to the below table to see the compulsory maximum speed for each condition.

USER MENU	
1. LANGUAGE SET	1.ENGLISH
2. COUNTING SPEED	2.RUSSIAN
3. POCKET CAPACITY	3.SPANISH
4. SETTING	4.FRENCH
5. INTERFACE	
6. SENSITIVITY SETTING	
7. PARAMETER	
8. SET SPECIAL FUNC.	

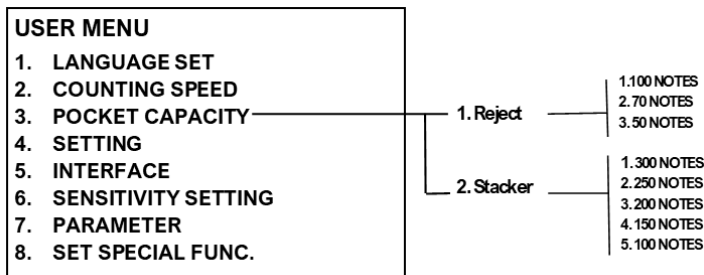
USER MENU	
1. LANGUAGE SET	1.800NPM
2. COUNTING SPEED	2.900NPM
3. POCKET CAPACITY	3.1000NPM
4. SETTING	4.1200NPM
5. INTERFACE	5. 1500NPM
6. SENSITIVITY SETTING	
7. PARAMETER	
8. SET SPECIAL FUNC.	

Mode	Compulsory Maximum Speed
COUNT	1500 NPM
MIXED / SINGL / SORT / FACE / ORENT	CF ON: 1000 NPM MAX (Default) CF OFF: 1200NPM MAX

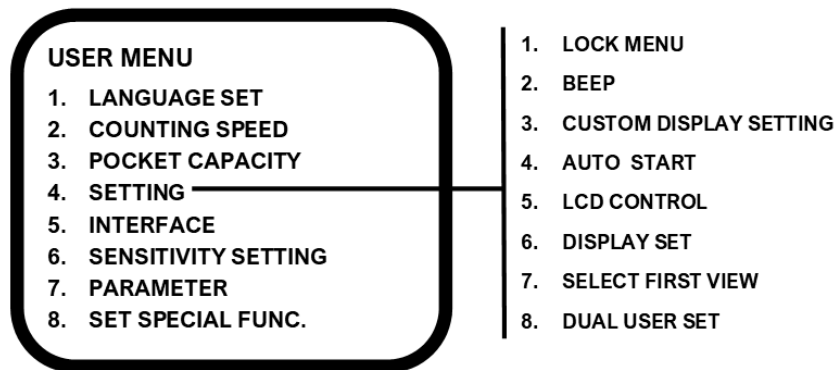
### 3. POCKET CAPACITY

The capacity of the Stacker and Reject Pocket can be selected using this SUB-menu by operator, mainly depends on the condition of banknotes processed in a location. If a customer's location known to process good circulated banknotes, then the capacity of the Stacker and Reject Pocket can be set to higher capacity,

otherwise, it is suggested to use the default set value by the factory as 200 Notes for Stacker and 100 Notes for Reject Pocket. To select both pocket capacity, use (↑) (↓) key or corresponding numeric key followed by START/ENTER key to confirm your selection.

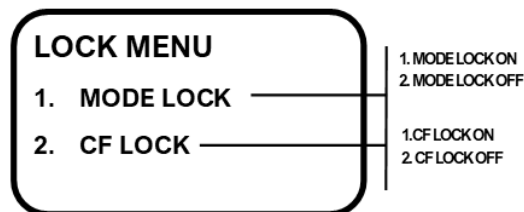


## 4. SETTING



### 1. LOCK MENU

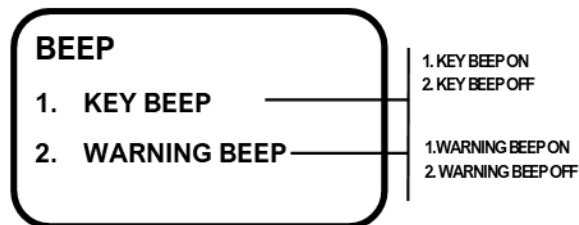
➤➤ To prevent accidental MODE switch, operator can disable the MODE key function under LOCK MENU as MODE LOCK (ON). While MODE LOCK is (ON), the MODE key becomes inactive. If operator wishes to change counting MODE, it will first require deactivating the MODE LOCK function to (OFF). To switch to ON/OFF, use (⇑)(⇓) key or corresponding numeric key followed by START/ENTER key to confirm your selection.



➤➤ To prevent accidental CF function shut off, operator can disable the CF key under LOCK MENU as CF LOCK (ON). While CF LOCK is (ON), the CF key becomes inactive. If operator wishes to disable this CF LOCK feature, then it will first require disabling the CF LOCK function to (OFF) by using (⇑)(⇓) key or numeric key followed by START/ENTER key to confirm your selection.

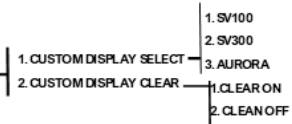
## 2. BEEP

There are two separate Beep function on this machine ➔ KEY BEEP and WARNING BEEP and they are ON by default. “KEY” Beep function represents beep sound when pressing Keys on the control panel and if it is turned off, BEEP will not sound off. Same for WARNING Beep feature which is turned on by Default. Anytime there is a warning from machine operation, an audible beep tone will sound off. To turn ON/OFF this function, enter into their sub-menu item and use (⇑)(⇓) key or numeric key followed by START/ENTER key to confirm your selection. It is highly recommended that both Key and Warning beep should be turned ON all the time as it is also set as default in the software.



### 3. CUSTOM DISPLAY SETTING:

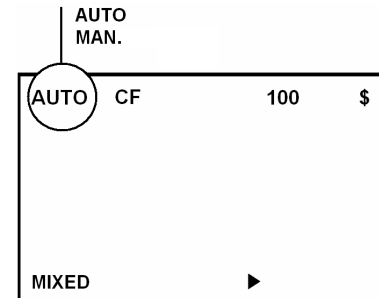
Operator can select customer Display type on this Menu item under 1. CUSTOMER DISPLAY SETTING sub-menu. Operator can also select whether count results on the external Customer



display should be stayed on until a next count starts or clear out when banknotes are removed from Stacker using 2.CUSTOMER DISPLAY CLEAR sub-menu.

### 4. AUTO START

When the AUTO function is turned ON, the machine automatically feeds and counts banknotes on the hopper, whereas in MANUAL mode, pressing START/ENTER key is required to start counting operation after banknotes are placed into the hopper. Note that machine is defaulted as "AUTO" from factory and to change into MANUAL mode, enter into "4. AUTO START" sub-menu by



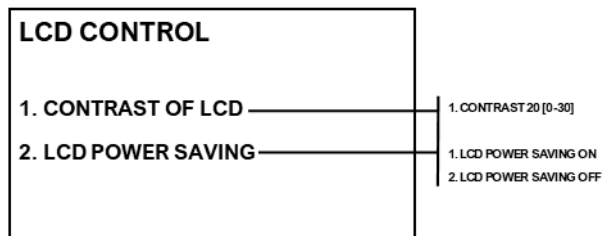
pressing ENTER key or the numeric "4" key and then make your selection / switch. If "AUTO START ON" is selected, the LCD screen will display "AUTO", otherwise will display "MAN." Stands for "Manual" operation.



## 5. LCD CONTROL:

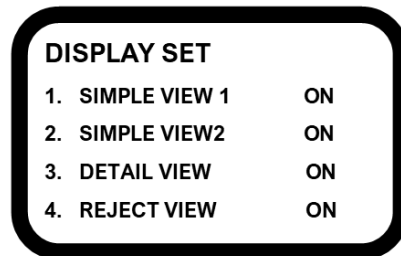
If the contrast of LCD screen found to be too dark or too bright, operator can change the contrast level by using (↑)(↓) key followed up START/ENTER key to confirm the new setting. While default is set at 20 [0-30], the higher >20 number would increase the contrast of the LCD screen further which we do not highly recommend.

Under this LCD CONTROL menu, operator also has option to keep LCD Display ON or turn OFF (to save power and LCD longevity) while machine is inactive.



## 6. DISPLAY SET

Operator can select 4 different screen views using of [DISPLAY] key and appear when a count is completed. Operator can press [DISPLAY] key to change view to see SIMPLE VIEW 2 (Count and Pieces and Total count and Pieces) or DETAIL VIEW (Showing Piece and total for all denominations counted) or REJECT VIEW (to see reject reasons for all rejected bills to reject pocket). (please refer to submenu “Changing Display Contents” in Chapter. 6. Basic Operation)



## 7. SELECT FIRST VIEW

Operator can select and default preferable view of the main screen from 3 different screen views as illustrated on the left side diagram. Operator can use (↑)(↓) key or corresponding numeric key to scroll and select your selection by START/ENTER key, however, in discriminating mode, it is strongly suggested that either **1. SIMPLE VIEW1 (Default)** or '3.DETAIL VIEW' should be selected as the main screen.

### SELECT FIRST VIEW

1. **SIMPLE VIEW1**
2. SIMPLE VIEW2
3. DETAIL VIEW
4. REJECT VIEW

## 8. DUAL USER SET

DUAL-USER is a feature that allows one MiB-9 machine to be shared by two operators as User1 and User2. This feature is disable from factory by default, therefore if operator requires to activate this feature, enter into this Menu item from USER MENU and make your selection as "DUAL USER ON" and to deactivate, select "DUAL USER OFF".

### DUAL USER OFF

When this feature is OFF as by factory default or by operator, machine operates as for single user. In this configuration, printer or PC is connected to the RS232C port and USB port is used to connect PC (configuration is subject to change without further notice).

### DUAL USER SET

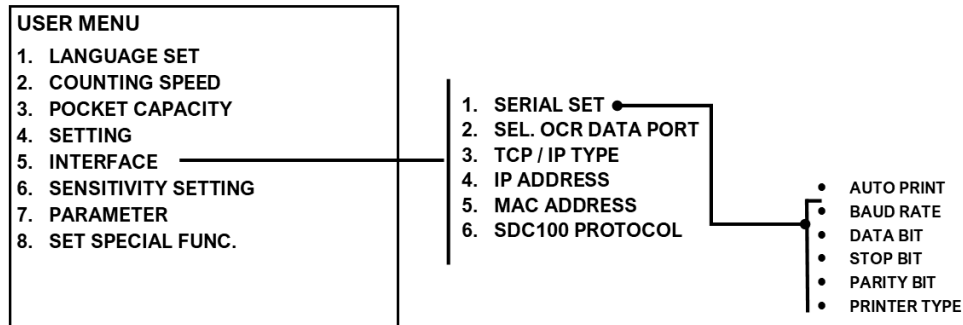
1. DUAL USER ON/OFF
2. CLEAR ALL GT
3. CLEAR USER 1 GT
4. CLEAR USER 2 GT
5. CUSTOM SET CLR

## DUAL USER ON

When this feature is turned ON, machine operates as for Dual Users. Each user can connect their PCs to RS232C port (User1's PC) and LAN Port (User2's PC) and sends counting results to corresponding PC. While both users can share one printer, they have to use different key to print which is, START/ENTER key (Right side of the control panel) for User1 and numeric '5' (START) key on the left side of the control panel for User2 (See submenu "Dual User" in Section. 6. Basic Operation at page 23).

## 5. PC Interface

Under PC Interface menu, operator is able to set Printer configuration (Baud Rate, Parity, Data Bit, Stop Bit), PC Protocol or Customer display protocol as well as select AUTO PRINT options as described below:



## 1. SERIAL SET:

- **AUTO PRINT:** Operator can select to automatically print counting results in a Printer (if one is connected) when after a count is completed and hopper is empty out or auto-print per each batch count is completed or operator can turned off this option to print manually after each count is completed.
- For available printers, <sup>+</sup>please consult with AMROTEC® or with your sales representative.

AUTO PRINT	
1.	OFF
2.	AFTER EMPTY HOPPER
3.	PER EACH BATCH

Standard “Serial” port configuration for printer is as below:

Speed (Baud Rate) : 9600 bps

Parity : None

Data Bit : 8

Stop Bit : 1

Printer Type : Type Normal (Default)

1. BAUD RATE	1. 9600 BPS
	2. 19200 BPS
	3. 38400 BPS
	4. 57600 BPS
	5. 115200 BPS
2. DATA BIT	1. 5 DATA BIT
	2. 6 DATA BIT
	3. 7 DATA BIT
	4. 8 DATA BIT
3. STOP BIT	1. 1 STOP BIT
	2. 2 STOP BIT
4. PARITY BIT	1. NONE
	2. ODD
	3. EVEN

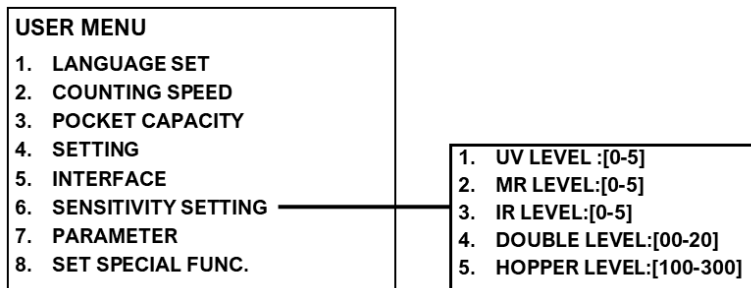
The parameters of an external Dot or Thermal printer should be set as above value. The Column Length parameter is to be set to the column length of the printer. To print counting results, press START/ENTER

key on the right side of the Control panel for User1 and numeric '5' (START) key on the left for User2 (See sub-menu “Dual User” in Section. 6. Basic Operation). To print the Grand Total, press GT to display Grand Total and press DISPLAY to see Grand Total Detail view.

2. **SEL. OCR DATA PORT:** This sub-menu option has no applicability for MIB-9 machine.
3. **TCP/ IP TYPE:** (Reserved for Software Developer)
4. **IP Address:** (Reserved for Software Developer)
5. **MAC Address:** (Reserved for Software Developer)
6. **SDC100 PROTOCOL:** (Reserved for Software Developer)

## 6. Sensitivity Setting (Only for trained operator/service-provider)

This is a password protected area and reserved for highly trained operator or service-provider.



### 1. UV 2.MR 3. IR : (Suspect Detectors)

MiB-9 is equipped with number of suspect detectors such as UV (Ultra-Violet), MR (Magneto-resistive / MG) and IR(Infra-red). Proper sensitivity settings for these detectors are preset from factory, however, if it

becomes necessary in case of a false alarm or rejection of genuine banknotes due to suspect errors, Operator is able to readjust (lower) the factory preset sensitivity settings (from 00 - 05) for these detectors equipped with this machine. Lower Value sensitivity level refers to lower sensitivity of each of these detectors. To determine the appropriate sensitivity level for each of these detectors, trained operator is recommended to start settings from lower level to higher level for each of these detectors and one detector at a time.

To change the sensitivity level, enter “6.SENSITIVITY SETTING” followed by ENTER and numeric key to scroll through different detector sub-menu and choose the level by using (↑)(↓) key. To confirm your selection, press START/ENTER key, press MENU key to return to Menu screen or exit from this sub- menu by pressing [C] key on the control panel.

## **2. DOUBLE LEVEL: (Only for Trained Operator or Service-Provider)**

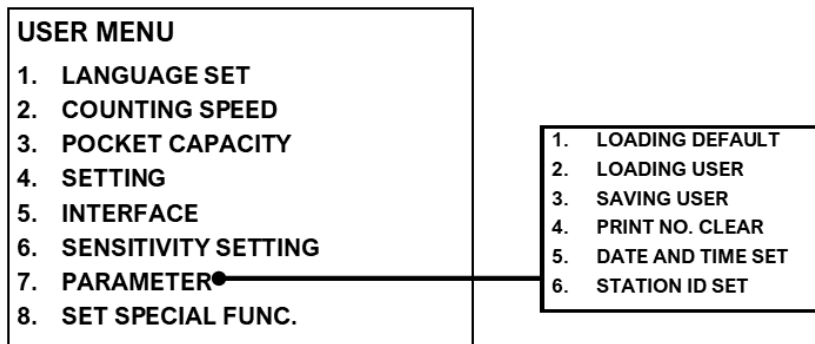
MiB-9 is equipped with a double detection sensor to prevent 2 banknotes to pass through as one. Appropriate Double sensitivity level as 10 [00-20] has been adjusted from factory, however, if it is necessary to trouble shoot double note error, trained operator or service-provider able to make slight adjustment of this level around default value. Please be note that any value over 10 may lead to single banknote is rejected as double note.

## **3. HOPPER LEVEL: (Only for Trained Operator or Service-Provider)**

MiB-9 is equipped with hopper sensor to detect present of a banknote, thus machine starts counting operation.

Appropriate Hopper sensitivity level as 200 [100-300] has been adjusted from factory, however, if it is necessary to trouble shoot a problem related with banknote presence, trained operator or service-provider able to make slight adjustment of this level around default value. Please be note that any value over 200 may lead to machine's determination of a banknote presence on the hopper and machine may starts to operate.

## 7. Parameter



### 1. LOADING DEFAULT (only for trained professional)

Factory adjusted certain parameter (turned On/Off) and various settings as default settings during production.

During uses of MiB-9 machines in the field, operators or service-provider may change those parameters / settings

to user's own preferences. "LOADING DEFAULT" function allows trained operators or service-provider to refresh all the parameters and settings to factory's default settings.

## **2. LOADING USER**

Operators have option to save their own settings and parameters by using of "SAVING USER" sub-menu as described below under 3. SAVING USER and loading those setting and parameter by following "2. LOADING USER" sub-menu. Operator can use (↑)(↓) key or corresponding numeric key to enter the sub-menu and START/ENTER key to confirm the selection.

## **3. SAVING USER**

Operators can save their own setting and parameters by following this sub-menu. To save operator's own settings, enter into "3. SAVING USER" followed by START/ENTER key to confirm selection. Operator to use (↑)(↓) key or corresponding numeric key to enter the sub-menu.

## **4. PRINT NO. CLEAR**

This function resets print sequence number to 001. Enter into and select "4. PRINT NO CLEAR" using (↑)(↓) key or corresponding numeric keys followed by START/ENTER key to confirm the selection.



## **5. DATE AND TIME SET**

Operator can select or change date and time of counting operation that appears on each print report. Enter and select 5. DATE AND TIME SET by using (↑)(↓) key followed by START/ENTER key. A new popup window will open allowing input of date and time. Changes can be made by using of numeric keys (0-9) and scroll through by using of UP(↑) or DOWN(↓) key. START/ENTER key must be pressed to confirm operator's input and selection.

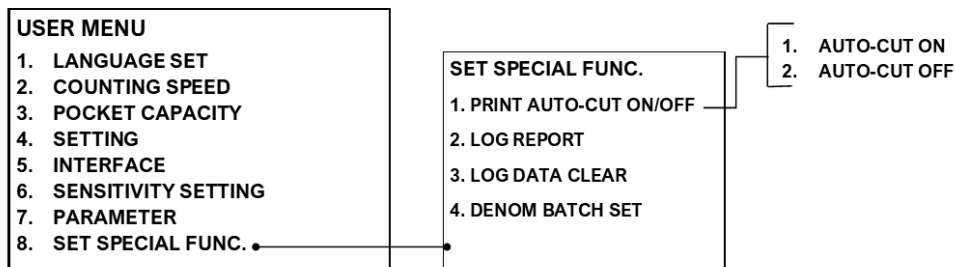
## **6. STATION ID SET**

Station ID represents a given No. for each MiB-9 machine and would appear on each print report. Select "6. STATION ID SET" to enter into this sub-menu and use numeric keys (1-9) to input your Station ID. Use (↑)(↓) key to scroll and START/ENTER key to confirm your input and save.

In case of DUAL USER operation, separate Station ID should be set for each operator as USER 1 and for USER 2 respectively (See submenu "Dual User" in Section. 6. Basic Operation, Page 23).

## 8. SET SPECIAL FUNC.

Operator can set various parameters using of this 8.SET SPECIAL FUNC which are described in brief at the below:



### 1. PRINT AUTO-CUT ON/OFF:

Operator can set whether print receipt should be automatically tear-off (1. AUTO-CUT ON) after a printing receipt is printed out or operator would choose to remove/tear off the print receipt from the printer manually (2. AUTO-CUT OFF). Printer must have Auto-Cut feature for this function to work.

### 2. LOG REPORT:

MiB-9 machine can print out various reports from balance report, operator report, customer report, reject report and so on. The explanation of these reports is described at the below:

- | LOG REPORT           |
|----------------------|
| 1. BALANCE REPORT    |
| 2. OPERATOR REPORT   |
| 3. CUSTOMER REPORT   |
| 4. REJECT REPORT     |
| 5. MACHINE REPORT    |
| 6. SUPERVISOR REPORT |

1. BALANCE REPORT:

This report shows total count for the current month using of this machine. Operator can view how many total banknotes counted for the current month by a specific machine and this report also includes qty and value per each denomination.

2. OPERATOR REPORT:

This report shows total count for the current month using of this machine – same as BALANCE REPORT for Operator. Operator can view how many total banknotes counted for the current month by a specific machine and this report also includes qty and value per each denomination.

3. CUSTOMER REPORT:

Customer report shows a specific deposit count for a customer for their individual deposit.

4. REJECT REPORT:

This report data is mainly to be used for service-provider to see how many banknotes rejected on a machine during periodical service or repair.

5. MACHINE REPORT:

Machine report data mainly to be used for service-provider during periodical servicing or repair.

6. SUPERVISOR REPORT:

Supervisor report is very detail and total count details can be viewed and printed by day, month, quarter or for the whole year.

### 3. LOG DATA CLEAR:

By selecting LOG DATA CLEAR sub-menu, an operator or supervisor can erase all LOG data of a machine as described under 2. LOG REPORT.

### 4. DENOM BATCH SET:

Denom. Batch Set (DB) refers to denomination batch setting for strapping of each denomination of banknotes at a certain number. Although 100 pcs as standard set (factory defaulted) for all denominations according to FRB's requirement for strap, user can modify these batch number for each denomination manually and save into Machine software by pressing START/ENTER when changes are done. Changes can be made by using of numeric keys (0-9) and scroll through by using of UP(↑) or DOWN(↓) key.

START: SAVE		MODE: ALL / DENOM	
[ALL]	:	[ - - ]	
[ \$1 ]	:	[ 100 ]	
[ \$2 ]	:	[ 100 ]	
[ \$5 ]	:	[ 100 ]	
[ \$10 ]	:	[ 100 ]	
[ \$20 ]	:	[ 100 ]	
[ \$50 ]	:	[ 100 ]	
[ \$100 ]	:	[ 100 ]	

To Activate this function and to choose this Denom. Batch (DB) option on the Batch menu, press BATCH key until DB appears on the Display Screen. Note that this Denom, Batch function only work with SINGLE and SORT mode.

**LCD Error Messages**

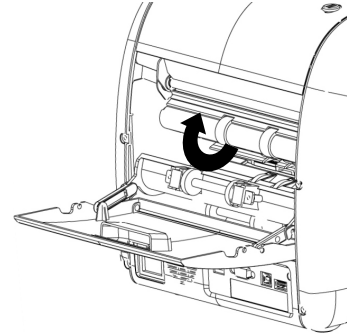
Display	Meaning
CHECK FRONT AREA	Front Cover is opened, or banknotes are inside
CHECK REAR AREA	Rear Cover is opened, or banknotes are inside.
FEED MOTOR ERROR	Feed Motor is stopped or malfunctioned.
CLEAR HOPPER	Banknotes remain in the Hopper.
CLEAR REJECT POCKET	Banknotes remain in the Reject Pocket
CLEAR STACKER POCKET	Banknotes remain in the Stacker Pocket
FEEDING ERROR	Banknotes feeding (misaligned) Error
JAM1	Jam occurred near RP sensor
JAM2	Jam occurred near JP sensor
JAM3	Jam occurred near SP sensor
JAM4	Jam occurred near guide selector

Notes: Please refer to diagram on “Chapter 9” to identify the location of RP / JP / SP sensors.

### Troubleshooting:

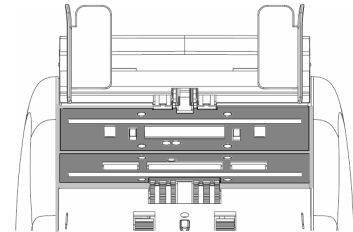
#### CHECK FRONT AREA / CHECK REAR AREA

1. Check to see if any banknote remains inside.
2. Close the cover until it clicks and locked in place.
3. Press "C" to Clear and Exit.



#### CLEAR HOPPER

1. Remove any remaining banknotes on the Hopper.
2. Press "C" to Clear and Exit.



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

1. Remove any remaining banknotes on the Hopper or from the feeding path.
2. Press "C" to Clear and Exit.

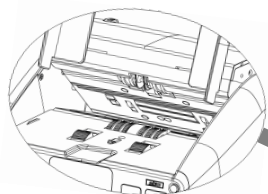
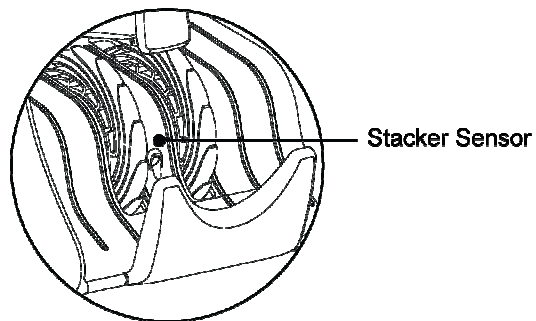
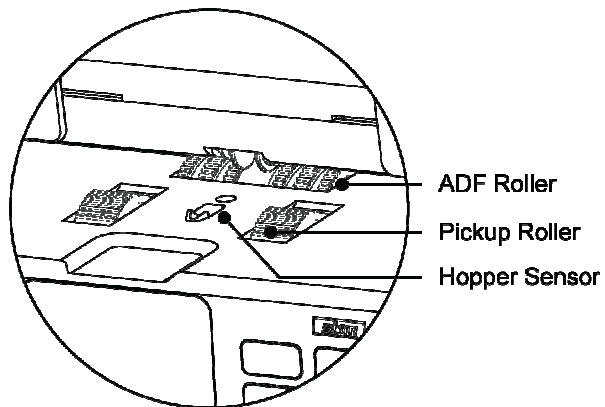


In case of JAM3 error (Jam occurred near SP sensor) and as a result, if the banknote is tightly jammed and not easy to remove it from the front, then please open the rear cover and turn a roller in reverse direction by hand to remove the badly jammed banknote.

The MIB-9 machine utilizes various sensors to check and detect various types of malfunction of the machine, identify the location of banknotes in the path and to recognize the denominations of banknotes. Most of these sensors are exposed in the bill-path and allow dust to accumulate from counting of banknotes. If these sensors are not cleaned periodically, this may negatively affect the performance of machine and cause machine to malfunction.

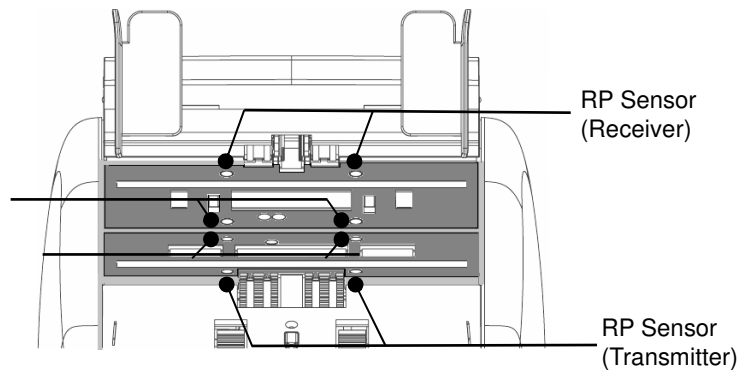
Dust off these sensors and transport path as described below periodically using an Air-duster and clean with attached cleaning cloth with this machine. If possible, perform some basic dust-off cleaning right after every heavy-uses or at least at the end of the day. The power of the machine must be turned Off before any cleaning or dust removal is taken place. MiB-9machine does include a Dust Tray at the Rear side which should be removed and cleaned [please ask your service provider to perform this task]. In any case, do not use a volatile solvent for cleaning the surface or inside of the machine.

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

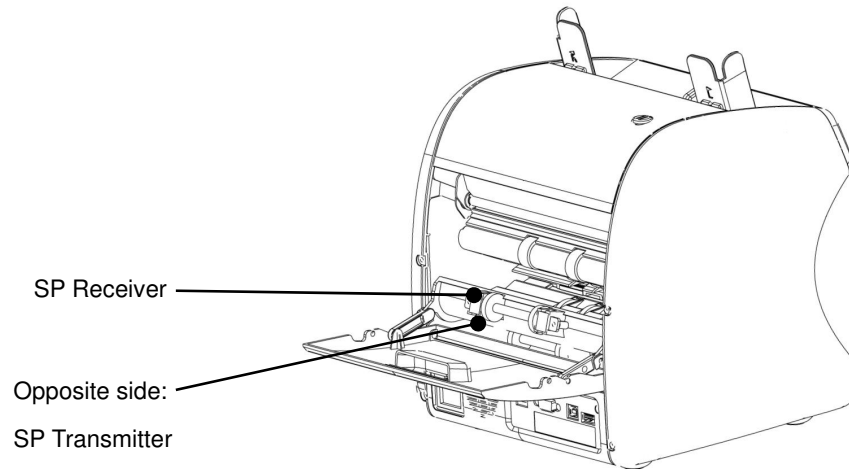
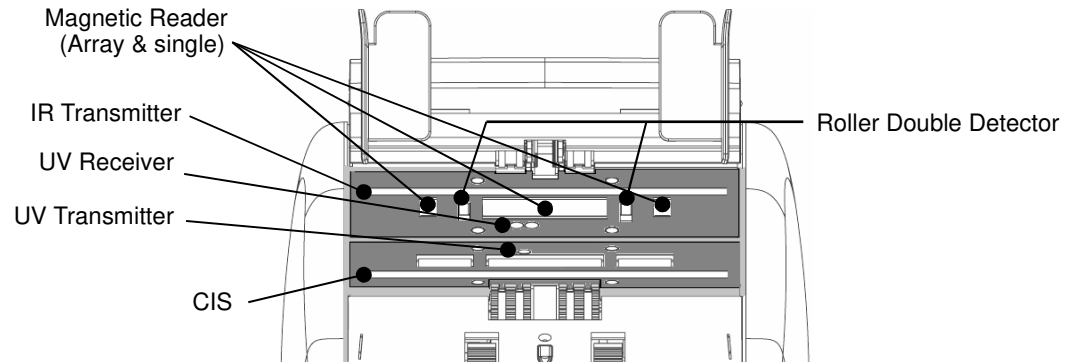


JP Sensor  
(Receiver)

JP Sensor  
(Transmitter)







Item	Unit	Specification
Size (W x D x H)	inch	11" x 10.6" x 10.3"
Weight (Net)	Lbs. / Kg	Approx. 17.6Lbs / 8Kgs
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		1 RS232C Port, 1 USB Port, 1 SD Slot, 1 RJ 45 Port
Currencies available		USD + CAD Std. (Available up to 10 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/SORT/FACE/ORIENT/COUNT
Preset Batch Number		1 – 200
Counterfeit Detector		UV (3ch.), MR-Array, IR

Power Requirements	VAC/Hz	100-240VAC, 50~60Hz
Power Consumption	W	Standby: 7 , Operation: 55
Ambient Conditions		0~40deg/30~85%RH (Non-Condensing)

Notes:

- The above specification can be changed without further notice to improve machine's reliability, performance, function or overall design.
- The contents of this operator's user manual are subject to change without further notice.
- The height dimension does not include the height of rubber foot attached at the bottom of the machine.

## **Limited Warranty, Disclaimer, Service:**

### ***Limited Warranty:***

Congratulations on your purchase of AMROTEC® MiB-9 Series Currency Discriminator Counter. The manufacturer warrants this equipment for a period of 1(One) Year after the date of purchase against defects due to faulty workmanship or materials. This warranty does not cover normal wear and tear of parts or damages resulting from any of the following: negligent use or misuse of the product, use on improper voltage or current, power outage due to non-power surge protector power-strip uses and any other uses contrary to operating instructions or disassembly, repair or alteration by any person other than an authorized and trained AMROTEC® technician or Service Provider.

Parts repair or replacement under this warranty is only provided upon presentation of reasonable evidence that the date of the claim is within the warranty period and warranty guideline has been satisfied. To obtain warranty support, repair, servicing, you may contact sales representative of your MiB-9 Series Currency Discriminator Counter.

### ***Disclaimer:***

Warranty remedies limited to only parts repair or replacement of this equipment. Manufacturer, distributor, dealer or sales representatives of MiB-9 Series Currency Discriminator Counter shall not be liable for any incidental or consequential damages for breach of any express or limited warranty on this equipment or any part thereof. Except to the extent prohibited by applicable law, manufacturer, distributor, dealers, and sales representatives of Mib-11 Series Counter Discriminator Counter disclaims any implied warranty or merchantability or fitness for a particular purpose of this equipment or any part thereof. This warranty gives you specific legal rights, and you may also have other rights which vary from state or state of United States of America. This warranty is valid only in the United States of America.

### ***Service:***

To obtain out of warranty repair or service on your MiB-9 Series Currency Discriminator Counter, contact your sales representative or your Service Provider you have signed maintenance contract with.

It is recommended that all equipment returned for service and repair must be returned to your Service Provider in the original packaging.

# AMROTEC®

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Printed in South Korea

November 2019

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