

# Magner100 User Manual

1 POCKET CURRENCY COUNTER& DISCRIMINATOR

- ◆ Advanced intelligent single pocket currency counter.
- ◆ Reliable discriminator with excellent counterfeit detection.
- ◆ Easy Maintenance for cleaning sensors



# MAGNER100 USER MANUAL

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# Introduce

iSNIPER is the advanced intelligent single pocket currency counter.

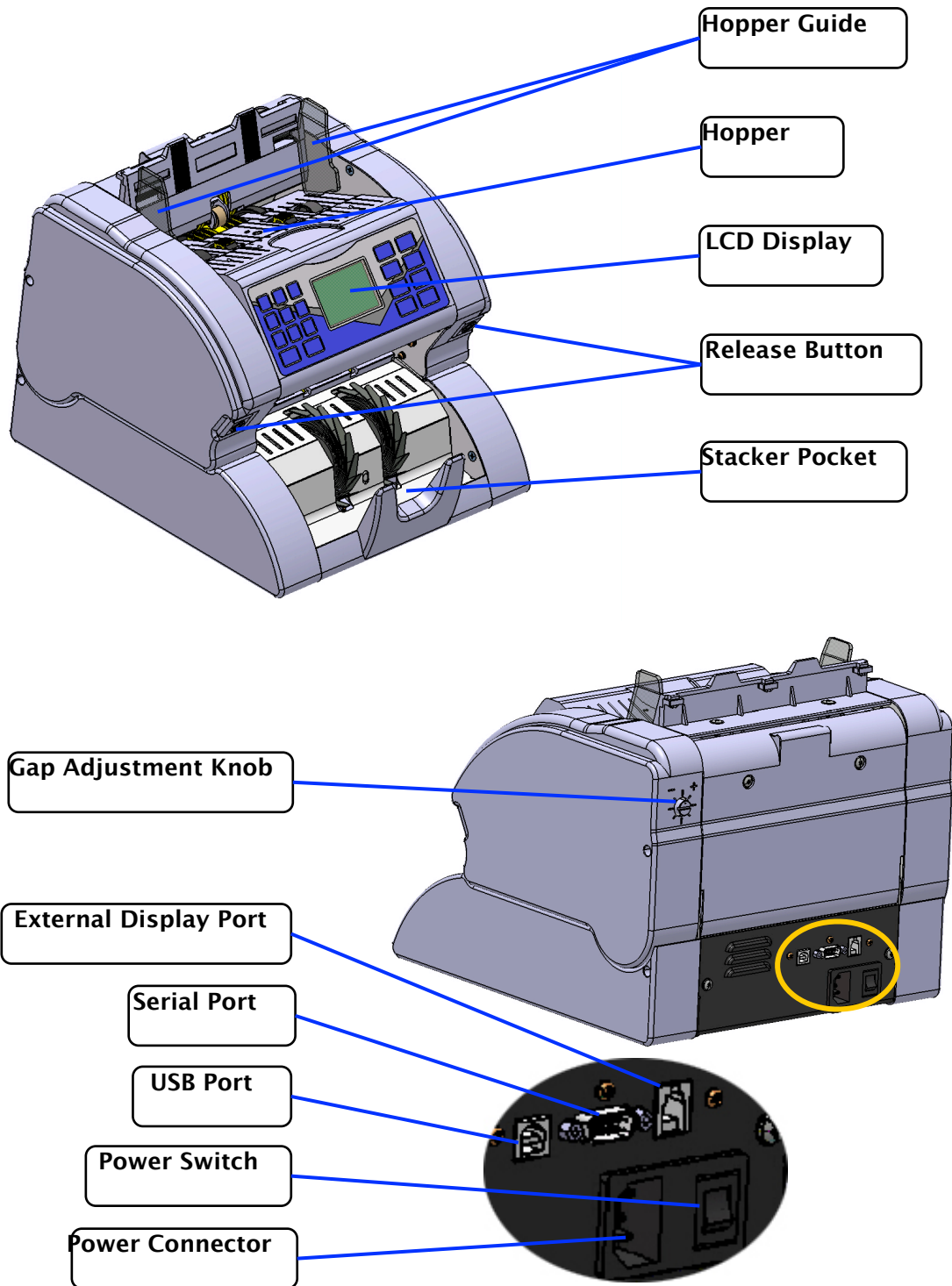
Utilizing Full IR CIS sensor, it can recognize value and count banknotes, while providing the highest level of protection against counterfeits.

# For Safety Use

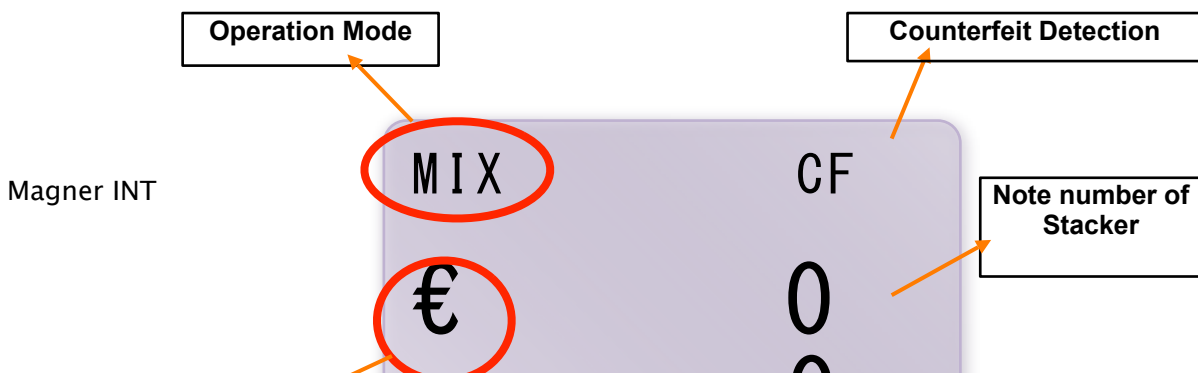
Please read this instruction manual thoroughly in advance to use in the correct way.



# MAGNER100 USER MANUAL




## 1. Display Description



# MAGNER100 USER MANUAL

## 2. Key Operation Description

	
<b>SET</b>	1. Select Counting Speed in COUNT Mode. 2. Select denomination in SG Mode. 3. Enter Engineer Mode.
<b>MODE</b> ▼	1. Select Operation Mode. 2. Enter USER Mode
<b>SAVE PRINT</b>	Print counting result to print or screen.
<b>START RESET</b>	1. Clear counting result on the screen. 2. Exit sub Mode.

### Shortcut Key (Long Key Operation)

If press and hold down Number Key, you can select special currency or mode directly.

<b>0</b>	Go to COUNT Mode.
<b>1</b>	Go to EURO (local currency 1) Mode.
<b>2</b>	Go to USD (local currency 2) Mode.
<b>3</b>	Go to local currency 3 Mode.
<b>4</b>	Go to local currency 4 Mode.
<b>5</b>	Go to local currency 5 Mode.
<b>6</b>	Go to local currency 6 Mode.
<b>7</b>	Go to NORMAL COUNT Mode.
<b>8</b>	Go to ADD Mode.
<b>9</b>	Go to GRAND TOTAL Mode.



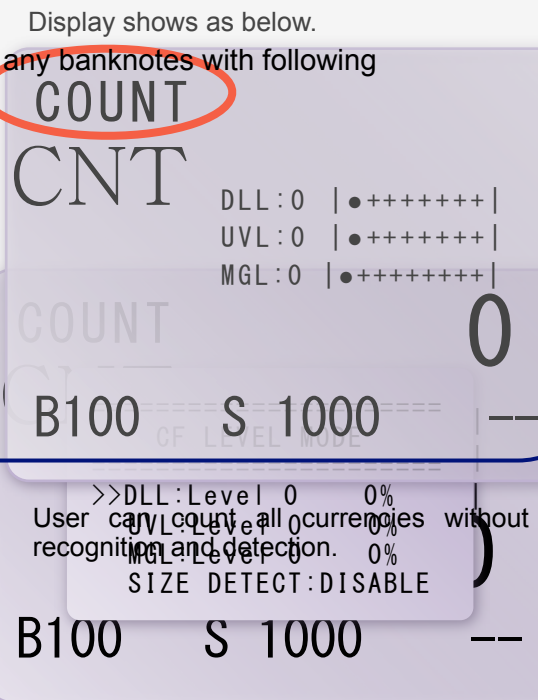
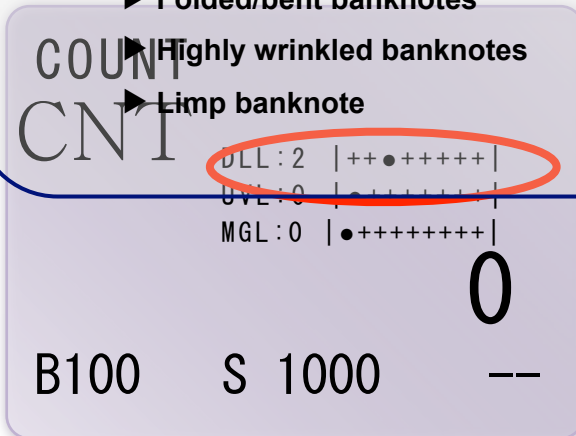
## 3. Basic Mode

### 1. **Preparing Banknotes** **COUNT Mode**

Make sure that there are not paper clips, rubber bands, staples or similar objects of the banknotes.

Press **CURRENCY** Key and select **COUNT** Mode.  
Before inserting the banknotes, sort out any banknotes with following characteristics.

- ▶ **Extreme damages**
- ▶ **High soil levels**
- ▶ **Folded/bent banknotes**
- ▶ **Highly wrinkled banknotes**
- ▶ **Limp banknote**



When press **LEVEL** Key, DDL is changed.  
And long **LEVEL** Key can enter **CF LEVEL MODE**.  
In this mode, user can select **DDL**, **UVL**, **MGL** and **SIZE DETECTION**.

Move Cursor

Change Level.



**CF LEVEL MODE**.



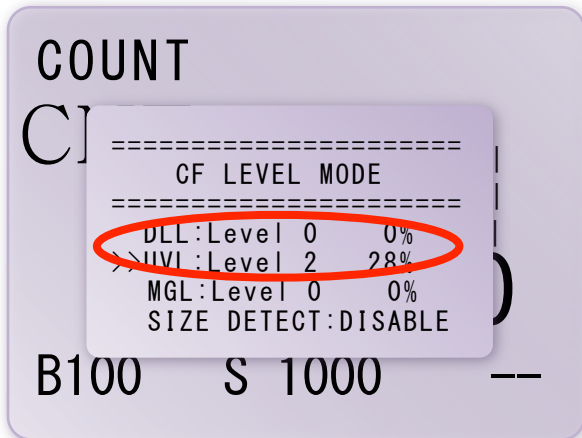
**DDL** means **Double Detection Level** in Count Mode.

User can select 1~8 levels.

- DDL 1~2 : For local currency.
- DDL 3 : For Euro
- DDL 4~5 : For HCB

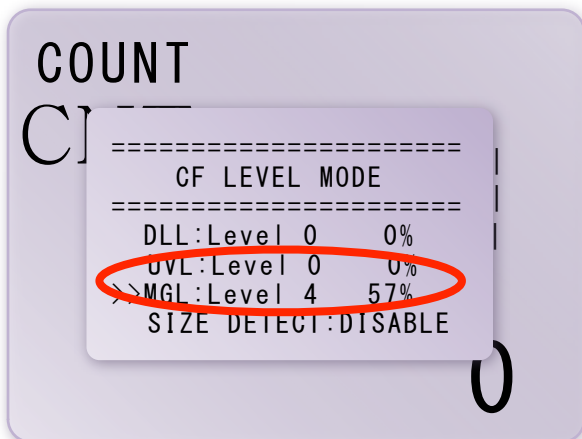
# MAGNER100 USER MANUAL

## UV Level



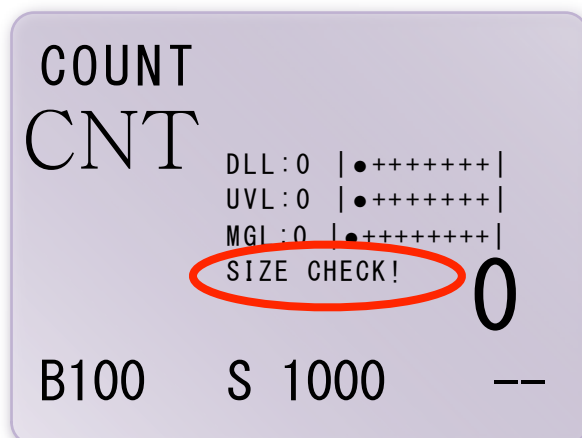
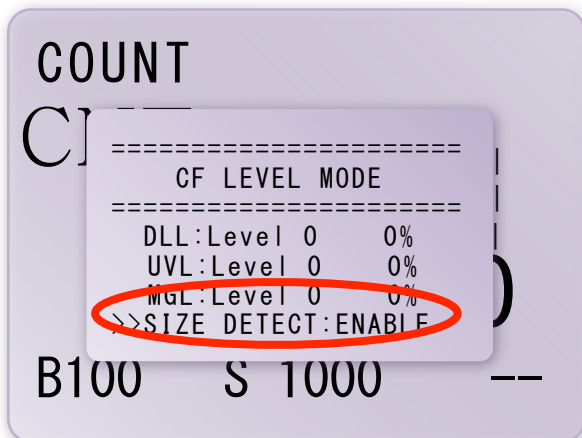
In COUNT Mode, machine has adjusted UV Level function for detecting white paper. User can select 1~8 levels. According to thickness of notes, UV Level is different. Before counting, please check and adjust Level first.

## MG Level



In COUNT Mode, machine can have simple detection function by adjusting MG Level. User can select 1~8 levels. Before counting, please check and adjust Level first.

## SIZE Detection



If SIZE DETECTION is enabled, machine can detect the different size note. When a note which has a different size ( $\pm 5\text{mm}$ ) from the first note is inserted, machine stops.

## 2. EURO Mode

# MAGNER100 USER MANUAL



Press **CURRENCY** Key and select EURO Mode.



Press **MODE** Key and select Operation Mode.

Display shows as below.



In this Mode, the machine can **recognize** and **detect** EURO currency.

## 3. USD Mode

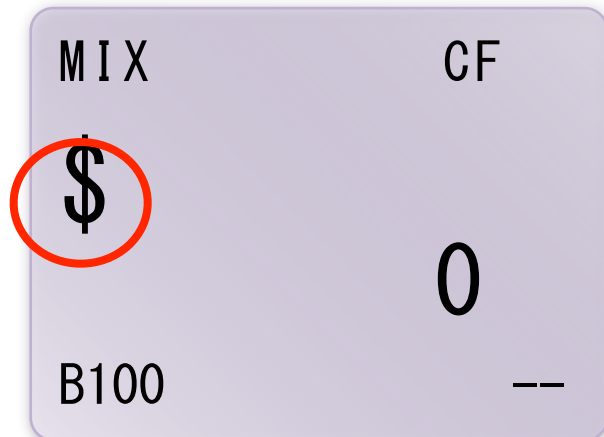


Press **CURRENCY** Key and select USD Mode.



Press **MODE** Key and select Operation Mode.

Display shows as below.



In this Mode, the machine can **recognize** and **detect** USD currency.

## 4. Local Currencies Mode



# MAGNER100 USER MANUAL

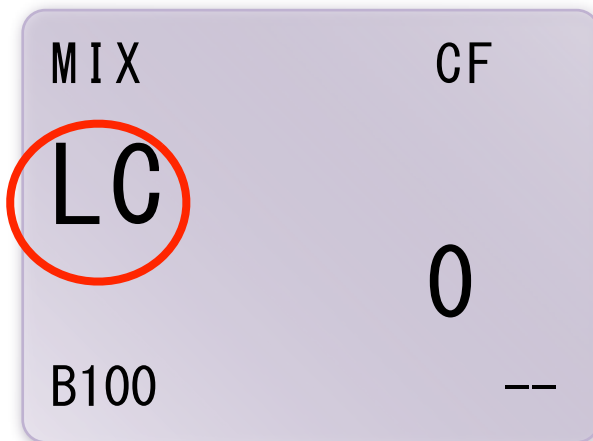


Press **CURRENCY** Key and select local currency.



Press **MODE** Key and select Operation Mode.

Display shows as below.



## **Note!**

*Some local currencies may be counted only.*

## 4. Operation I

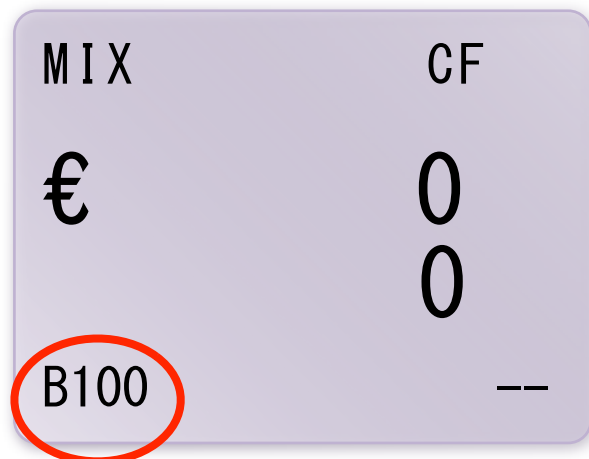
### 4-1. BATCH Mode

# MAGNER100 USER MANUAL



If press BATCH Key, user can select batch number which is registered already. (5, 10, 20, 50, 100)  
When user wants to select special batch number, please use Number Key (0~9).  
If press CLEAR Key, batch number will be changed to 0.

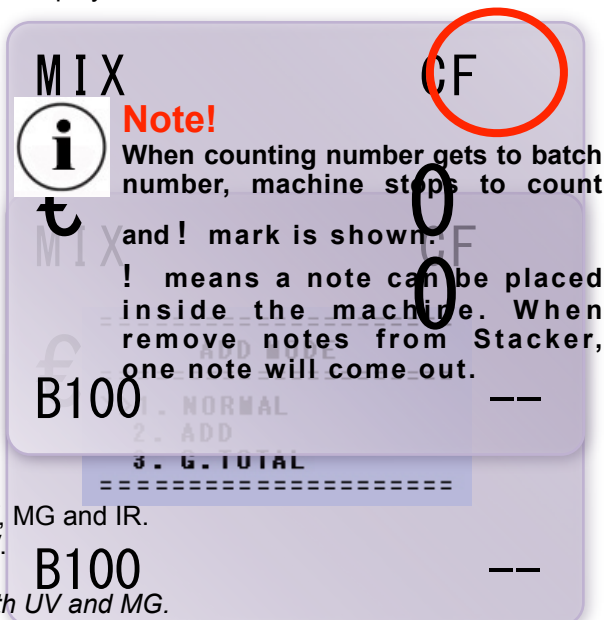
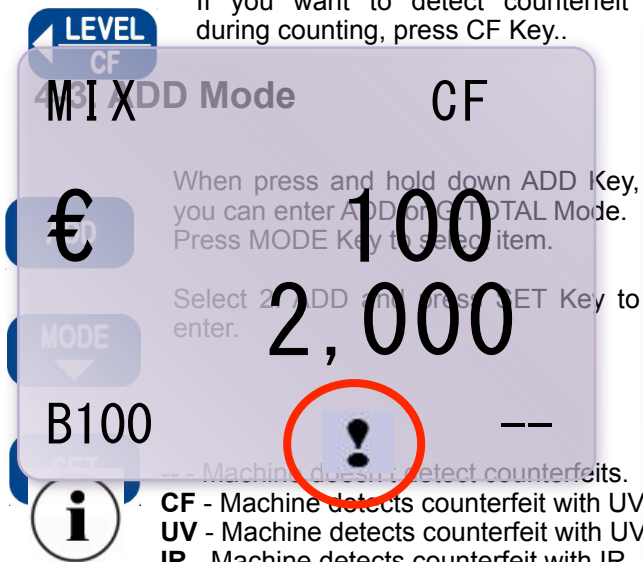
Display shows as below.



## 4-2. CF Mode

If you want to detect counterfeit during counting, press CF Key..

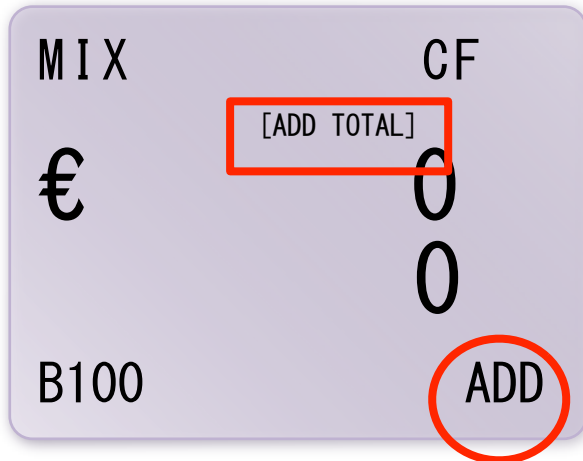
Display shows as below.



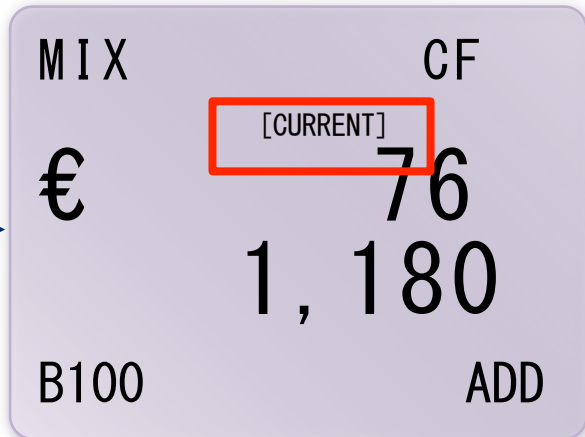
When press and hold down ADD Key, you can enter ADD or GET TOTAL Mode. Press MODE Key to select item.  
Select 2 ADD and press SET Key to enter.  
--- Machine doesn't detect counterfeits.  
**CF** - Machine detects counterfeit with UV, MG and IR.  
**UV** - Machine detects counterfeit with UV.  
**IR** - Machine detects counterfeit with IR.  
**UV+MG** - Machine detects counterfeit with UV and MG.  
**UV+IR** - Machine detects counterfeit with UV and IR.  
**MG+IR** - Machine detects counterfeit with MG and IR.  
When you select LOCK, the previous condition is kept although you press CF Key.

# MAGNER100 USER MANUAL

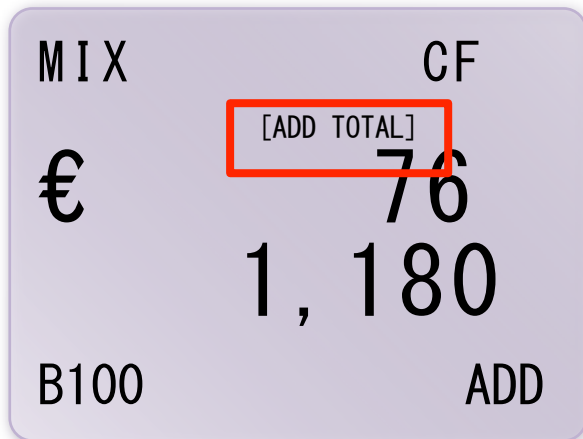
Display shows as below.



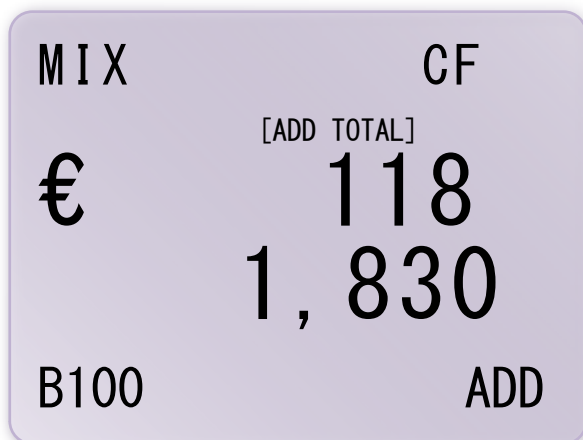
When count notes, display shows the current counted information



When count notes again, display shows the current counted information



When remove the notes from stacker, display shows added information between current and ahead counted notes.



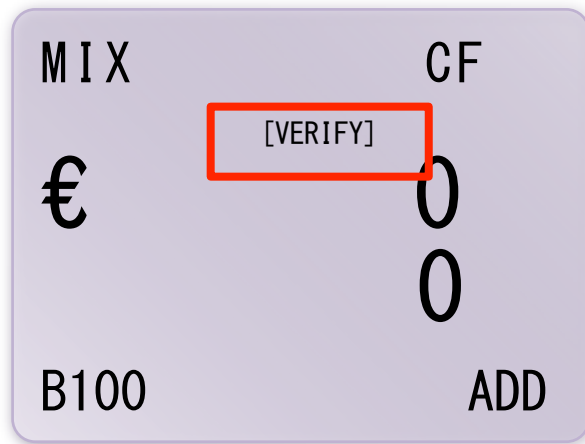
When remove the notes from stacker, display shows added information between current and ahead counted notes.

## Verify Function

# MAGNER100 USER MANUAL

## ADD

In ADD Mode, press ADD Key again shortly. VERIFY function is activated and display shows as below. When VERIFY function is turned on, you can count new notes which is no relation with ADD value.

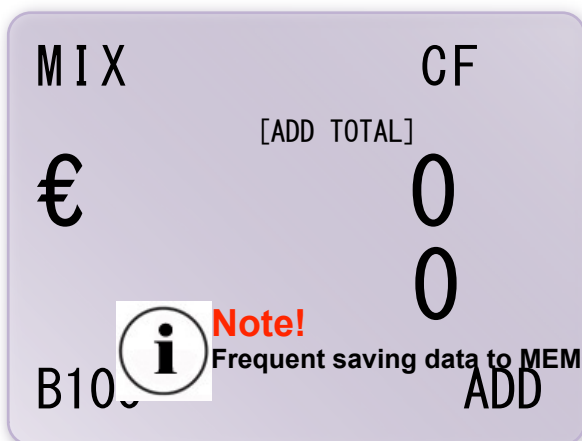
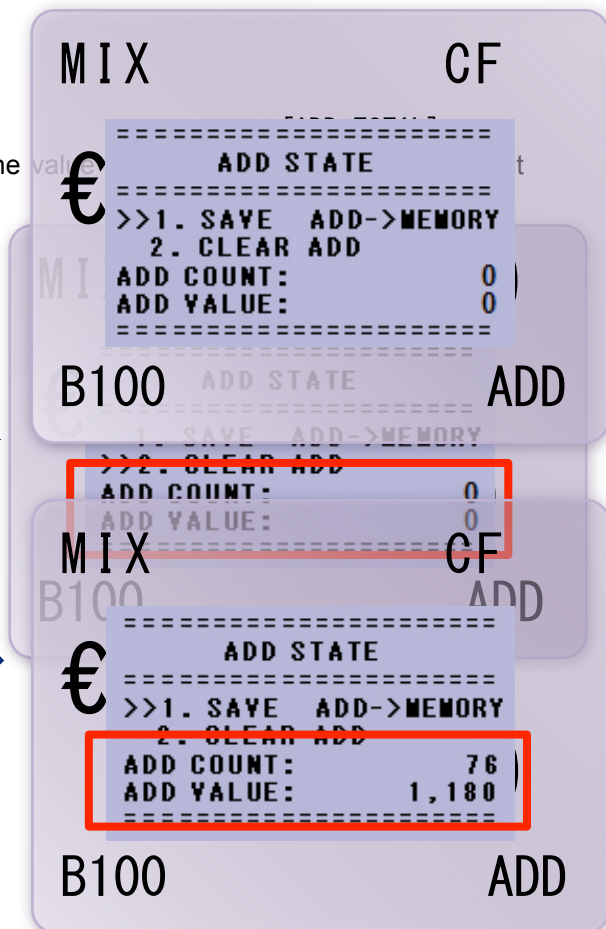
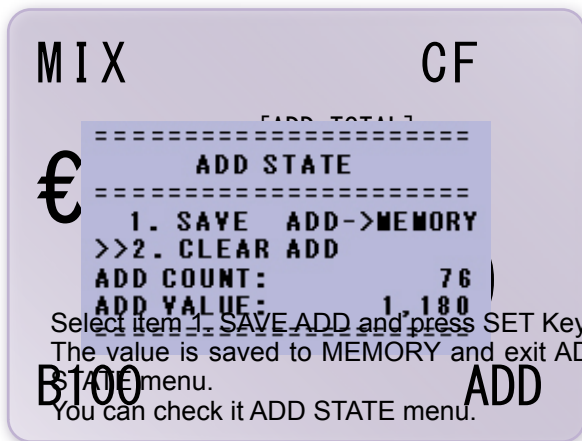


## Save ADD value to MEMORY

### START RESET

Press and hold down START Key, ADD STATE menu appears. You can save or delete ADD value to MEMORY.

Select item 2. CLEAR ADD and press SET Key. The ADD STATE menu.



### Note!

Frequent saving data to MEMORY can shorten the life of Main Board.

# MAGNER100 USER MANUAL

## **4-4. GRAND TOTAL Mode**

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**ADD**

When press and hold down ADD Key, you can enter ADD or G.TOTAL Mode. Press MODE Key to select item.

**MODE**

Select 3. G.TOTAL and press SET Key to enter.

**SET**

MIX

CF

€

```
=====
      ADD MODE
=====
>>1. NORMAL
   2. ADD
   3. G.TOTAL
=====
```

B100

--

Display shows as below.

MIX

CF

€

[GRAND TOTAL]

00

B100

GT

MIX

CF

€

[CURRENT]

49760

B100

GT

When count notes, display shows the current counted information

MIX

CF

€

[ADD TOTAL] [ 1]

49760

B100

GT

When remove the notes from stacker, display shows ADD TOTAL x value .

**START  
RESET**

When press START Key, you can check ADD TOTAL and GRAND TOTAL value.

**Save ADD TOTAL x to GRAND TOTAL**

Magn

MIX

CF

€

[ADD TOTAL] [ 7]

42

MIX

CF

€

[GRAND TOTAL]

606



# MAGNER100 USER MANUAL

**START RESET** Press and hold down START Key, you can save the value to MEMORY or G.TOTAL.

**Delete GRAND TOTAL value**

Select Item 4. CLEAR G.TOTAL and press SET Key.

**MODE** Press MODE Key and select Item 2. SAVE ADD->G.TOTAL.

**SET** Press SET Key and save the value to GRAND TOTAL.

1. SAVE ADD->MEMORY  
2. SAVE ADD->G.TOTAL  
3. CLEAR ADD  
4. CLEAR G.TOTAL

ADD COUNT: 0  
ADD VALUE: 0

MIX CF  
[ADD TOTAL] [ 3]  
38  
590  
B100 GT  
B100 GT  
0  
B100 GT

MIX CF  
[GRAND TOTAL]  
49  
760  
B100 GT

## 5. Operation Mode II

Operation Mode	
MD Mode	Count all denomination of selected currency.
SP Mode	The machine saves denomination information from first inserted note.
SP VERS Mode	The machine saves denomination and version information from first inserted note.
SG Mode	Before counting, the user can select a specific denomination to be counted.

### 5-1. Mix Mode

**CURRENCY** Press **CURRENCY** Key and select currency which you want to count.

**MODE** Press **MODE** Key and select MIX Mode.

MIX CF  
€ 0  
0  
B100 --

You can count all denomination of selected



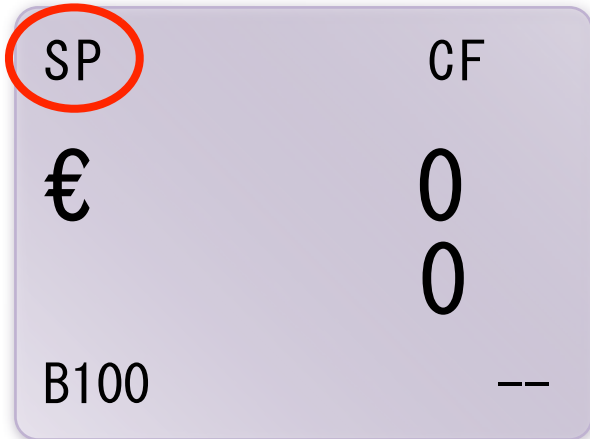
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**CURRENCY** ▶

Press **CURRENCY** Key and select currency which you want to count.

MODE

Press **MODE** Key and select SP Mode



The machine sorts out the same denomination with first inserted note.

### 5-3. SP VERS Mode

**CURRENCY ▶**

Press **CURRENCY** Key and select currency which you want to count.

MODE  
▼

Press **MODE** Key and select SP Mode

**SET**

Press **SET** Key.



The machine sorts out the same denomination and version with first inserted note.

## 5-4. SG Mode

**CURRENCY** ▶

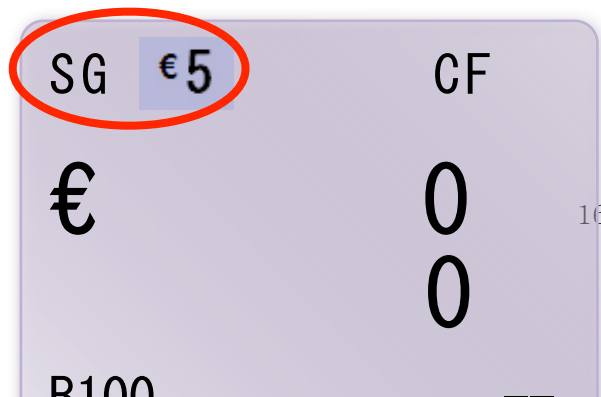
Press **CURRENCY** Key and select currency which you want to count except USD.

Magr 

Press **MODE** Key and select SG Mode.

SET

Press **SET** Key and select denomination.



# MAGNER100 USER MANUAL

## 6. USER Mode

MODE

MODE

BATCH

SET

USER MODE

=====

>>1. PRINTER SET

2. LCD LANGUAGE : ENGLISH

3. SP SELECT : REFRESH

4. WARNING BUZ : ON

5. CF LOCK : UNLOCK

6. COMMA : ENABLE

7. STACKER BRAKE : OFF

8. AUTO START : ON

9. POWER SAVE : 20MIN

Press and hold down **MODE** Key.

USER Mode is shown.

Move cursor to upside or downside.

Enter item.

p1/1

Move cursor to left or right and go to next page.

Go to higher mode or exit User Mode

# MAGNER100 USER MANUAL

## 1. PRINTER SET

1. BAUD RATE	Set up the baud rate between machine and printer.
2. PAPER SIZE	Set up the size of printer paper.
3. >>1. BAUD RATE	Set up 115200BPS
2. PAPER SIZE	3 INCH
4. BLANK OF TAIL	User set up the blank of tail.
3. FONT	12 X 24
5. PRINT NUMBER	Set up number of receipt.
4. BLANK OF TAIL	5 LINE
6. PAPER CUTTING	Set up cut paper automatically or manually.
5. PRINT NUMBER	1 PIECE
7. PRINT ID	Select to print ID to receipt or not.
6. PAPER CUTTING	NO
8. SELECT ID	Enter ID to machine.
7. PRINT ID	NO
8. SELECT ID	NONE
<b>LEVEL and CURRENCY Key:</b> Move position.	
<b>ADD and SET Key:</b> Select characters.	

## 2. LCD LANGUAGE

Select displayed language on screen.

## 3. SP SELECT

In SP Mode, machine recognized first note continuously or not.

**REFRESH:** After stop, machine remembers next inserted note again.

**CONTINUE:** Machine memorizes the first note continuously.

## 4. WARNING BUZ

If select ON, when error is caused, machine makes a beep.

## 5. CF LOCK

If you select UNLOCK, you can select the method of counterfeit detection.

After select UNLOCK, counterfeit detection function is changed by pressing **CF Key**.

## 6. COMMA

If select ENABLE, display shows COMMA by the thousand.

## 7. STACKER BRAKE

If select ON, when error appears, machine stops the stacker before the error note goes to Stacker pocket.

## 8. AUTO START

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If select OFF, machine start to count banknotes when operator press **START Key**.

## 9. POWER SAVE

If user does not use the machine during regular time, the machine enters screen save state

## SPECIFICATION

### -Technical Specification

Available currencies	EURO, USD, LOCAL		
Dimension(mm)	296(W)×325(L)×280(H)	Display	3.1" Graphic LCD (192x128 dot)
Weight	Approx. 10 Kg	Denomination Detection	Full Line Image Sensor, Color Sensor
Countable Notes Size	W: 100 × 180mm H: 60 × 90mm	Counterfeit Detection	UV, FL, MG (Magnetic Thread Detection), IR
Countable Note Thickness	0.08 ~ 0.12mm	Speed	Recognition Count 900 notes/min
Hopper Capacity	500 notes		Piece Count Max. 1100 notes/min

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Stacker Capacity	200 notes	Feed System	Roller friction type
Power Supply	100 ~ 240V AC, 50/60Hz	Power consumption	Approx. 140 Watts

## -Features

Local Currency	Max. 4 currency
IR Detection	Full Line IR CIS Sensor
External Display	LCD type for customer
Bill Printout	With RS232C Interface for PC and external printer. Print user name.

## Error Code List

No	Error Code	Description
1	<b>Chain 1 error</b>	The gap between two notes is under 100mm.
2	<b>Chain 2 error</b>	After note passes counter sensor, note length is over 100mm.
3	<b>JAM 1 error</b>	Encoder value isn't increased although motor turns.
4	<b>JAM 2 error</b>	Because note places on Counter sensor and motor is kept turning ticking over, length information is increased.
5	<b>JAM 3 error</b>	Note is not moved to upside when motor turns counter direction.
6	<b>Motor error</b>	Motor isn't controlled properly.
7	<b>Double error</b>	Thickness by measuring IR is lower than the standard.
8	<b>Half error</b>	Only half of note is recognized.
9	<b>MinSize error</b>	Note size is smaller than the minimum size.
10	<b>SKEW error</b>	The difference between R and L is over 10 mm.
11	<b>Rotate error</b>	Note is rotated over an angle of 20 degrees.
12	<b>XSize error</b>	X size of note is not matched. (CIS sensor information)
13	<b>YSize error</b>	Y size of note is not matched. (Cnt sensor information)
14	<b>IR 1 error</b>	IR error



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15	<b>IR 2 error</b>	IR error
16	<b>IR 3 error</b>	IR error
17	<b>Color 1 error</b>	Color error
18	<b>Color 2 error</b>	Color error
19	<b>UV 1 error</b>	UV error
20	<b>UV 2 error</b>	UV error
21	<b>MG 1 error</b>	MG error
22	<b>MG 2 error</b>	MG error
23	<b>MG 3 error</b>	MG error
24	<b>Image 1 error</b>	Image error

25	<b>Image 2 error</b>	Image error
26	<b>Image 3 error</b>	Image error
27	<b>Differ value</b>	Counted note is not matched with the selected denomination.
28	<b>Differ version</b>	Version is different with the set version.
29	<b>Sliding error</b>	After error is caused or Batch is completed, a note comes out together successively.
30	<b>Check Inner</b>	Note is inside of machine.
31	<b>Dog Ear error</b>	Edges of note are folded.
32	<b>Scratch error</b>	Image of notes is damaged and machine cannot recognize the denomination. (especially Polyer notes)

# MAGNER100 USER MANUAL

## Maintenance

The machine has many sensitive sensors to perform high technology functions, for example counterfeit detection, denominations, etc.

Users are recommended to clean the machine sensors **at least once a day**.

Refer to following section and clean the machine regularly.

※ Please turn the power off before cleaning the machine.

## Simple Trouble Shoot

No.	Problem		UV Sensor	White LED	IR LED
1	Power is not turned on.				Cable connection and turn on
					Counter Sensor
	Notes properly	2) Check USB cable is connected. If connected, remove USB cable.			Counter Sensor
	or occurs	1) Put banknotes on Hopper (Regularly)			Gap Adjustment Knob.
	fre	2) Adjust Insert GAP by turning Gap Adjustment Knob.			IR CIS Sensor
					e is not count notes
					Color Sensor
4	Machine makes a loud noi:				v Maintenance)
5	Machine doesn't start to put banknotes on Hopper.				ine what's there are
					ch, banknotes are in
		Stacker. Remove the notes from			UV Sensor
		2) Check Stacker Sensor.			
	nds of error	1) Clear machine. (Follow Maintenance)			
		2) Problem is not solved, contact our distributor near you or our designated dealers			

Ma

Stacker Sensor

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