

COIN SORTER

MAGNER 910



Operation Manual

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1. Introduction

MAGNER 910 is a coin sorter designed and produced by our company. It has counterfeit coin detection function. With the installed advanced eddy current sensor, it can simultaneously detect the metal coins' diameter, thickness and material, based on this feature, our MAGNER 910 can automatically recognize foreign coins, counterfeit coins and sheet metals etc. MAGNER 910 can sort 9 kinds of coins at the same time and has the function of automatically detecting, counting and sorting coins of programmed denominations, during which process the foreign coins will be sorted into Rejected Coin Drawer. Our MAGNER 910 can be connected with printer, external display or computer through RS-232 port. All data can be printed out at any time.

2. Specifications

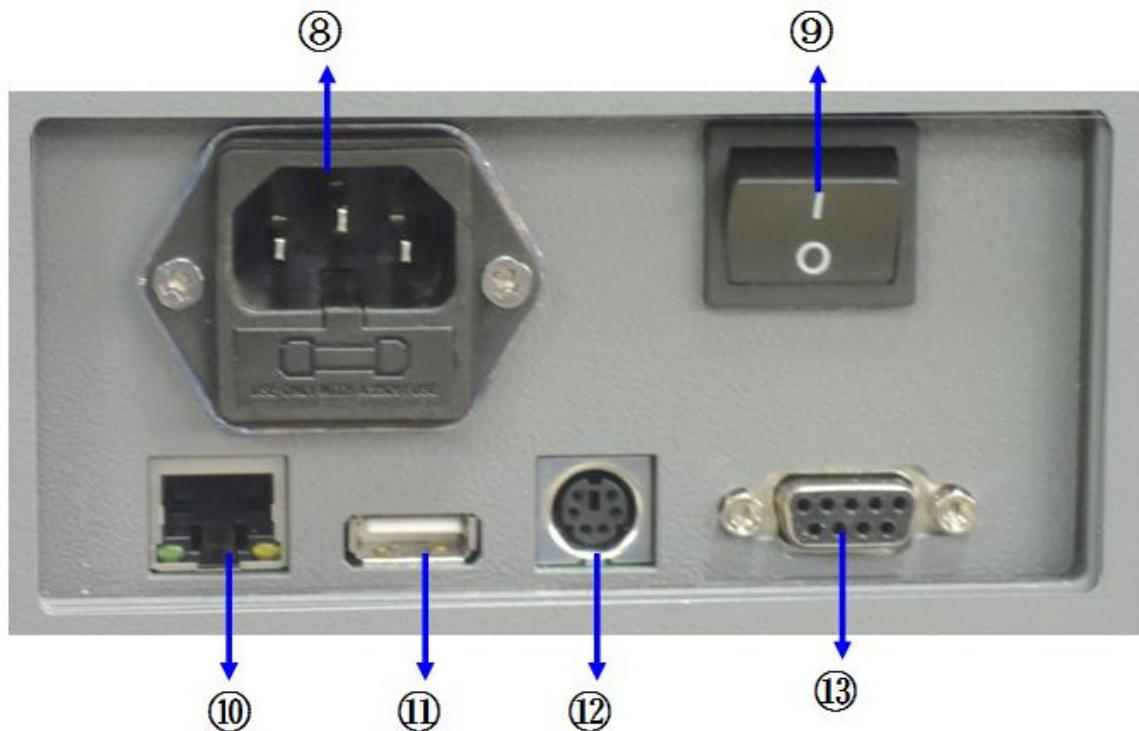
Sorting Speed	Approx.600coins/ min
Hopper Capacity	Approx.600pcs
Extended Hopper Capacity	Approx.3600pcs
Suitable Sorting Coin Range	Diameter 14-31mm Thickness \leq 3.5mm
Sorting Number	1-9 different kinds of coins
Machine Dimension	672×312×511mm
Weight:	32Kg
Power Consumption	60W
Power Supply	AC 220V-240V, 50/60Hz
Display	LCD Display(12864)
Ambient Temperature	0-40C°
Humidity	30-75%

3. Diagram



- ①: **Key panel**
- ②: **Presorting tray**
- ③: **Visible window**
- ④: **Handle**
- ⑤: **Socket board**
- ⑥: **Printer**
- ⑦: **Drawer**

4.Socket board



⑧: **Power socket**

⑨: **Power switch**

⑩: **LAN(reserved socket for network)**

⑪: **USB(for software upgrading)**

⑫: **PS2(reserved socket for external display)**

⑬: **RS232(communication with PC)**

5. Key Panel



Key Function:

- 1) **0~9**: Numeric key for fast batch number settings
- 2) **START /STOP**: Start or Stop
- 3) **SET**: Set MENU or set some functions
- 4) **ESC**: Return to MENU or clear rejected coin records
- 5) **CLR**: Clear counting records or clear error codes
- 6) **←, ↑, ↓, →**: Select different Channels, or select different Menu Setting; **↓** can also control Batch function ON/OFF
- 7) **MR**: Read memory data
- 8) **M+**: Save Self-learning parameters
- 9) **LIST**: Check detailed counting list
- 10) **Print**: Print sorting result and Self-learning parameters

6. Main Display Modes

1) Total Amount & Quantity Display Mode:

MIX- COUNT	STOP		
	VALUE:	125.90	
	COUNT:	190	
B		F:	2

2) Separate Channel Amount & Quantity Display Mode:

VALUE	COUNT	AMOUNT
2.00	50	100.00
0.50	50	25.00
0.01	90	0.90

7. Operating Procedures

Turn on the machine, the machine will enter into self-test mode and show following interface

```
MODEL : CS910S+
VERSION: MainBoard V1.0
        DispBoard V1.0
        ADBoard  V1.0
```

```
TESTING,PLEASE WAIT... 10
```

This self-test stage may need about 15 seconds for machine to get warmed up. If the test result is OK, then machine will enter into normal working status shown as following interface:

MIX- COUNT	STOP		
VALUE:	0.00		
COUNT:	0		
B	F:	0	

MIX-COUNT means mix-counting mode

RUN/STOP is the sign showing machine's running or stop status.

B is the sign of Batch Function is ON.



VALUE is for total Amount. **COUNT** is for total Quantity, **F** shows the quantity of foreign/fake coins.

- Press **START/STOP** key, the machine will enter into Total Amount & Quantity Display Mode interface:

MIX- COUNT	RUN		
VALUE:	0.00		
COUNT:	0		
B	F:	0	

At the same time, Motor will begin to run to get the machine work. When coin sorting is finished, it will display the sorting result of genuine and foreign coins on the above interface. The foreign coins will be rejected into the right-most Rejected Coin Drawer.

After the machine stops running, press **LIST** key to check Separate Channel Amount & Quantity Display Mode, shown as follows:

(Press ,  key to turn to choose different channel)

VALUE	COUNT	AMOUNT
2.00	50	100.00
0.50	50	25.00
0.01	90	0.90

VALUE: refers to the denomination

COUNT: refers to the quantity for each denomination

AMOUNT: refers the amount for each denomination

Data Clear:

·Under main modes interface, press **CLR** key to clear all counted data.

·Under main modes interface, press **ESC** key to clear rejected coin record.

Data Memory:

·Under main interface, press **M+** Key to save the quantity and amount for genuine coins. It saves the accumulated data of the counting results. Under main interface, when the counting quantity and amount for genuine coins is 0, you can press **M+** key to clear the saved data .

. Under self-learning interface, press **M+** Key to save the self-learning data, this function is only available for maintenance people

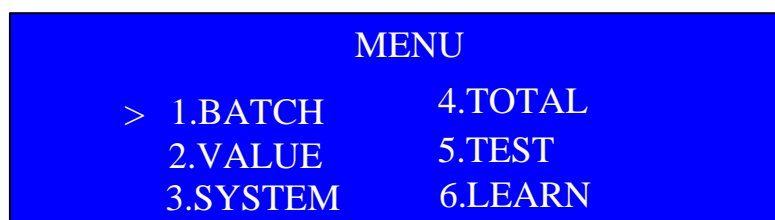
Data Memory Read:





·Under main modes interface, press **MR** key to read stored data;

·Under self-learning interface, press **M+** Key to read the original self-learning data, this function is only available for maintenance people

8. Function Settings

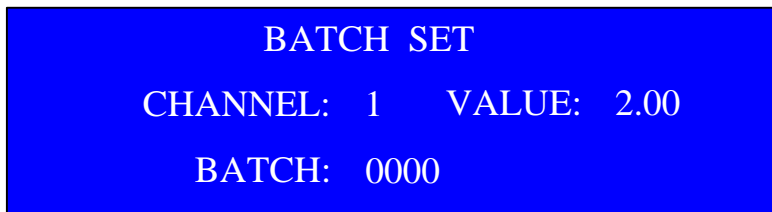
Press **SET** key to enter into Menu interface, shown as follows:









Directly press , , ,  four keys to choose target submenu and then press **SET** key to enter each into detailed operation


interface:



(1) **BATCH**



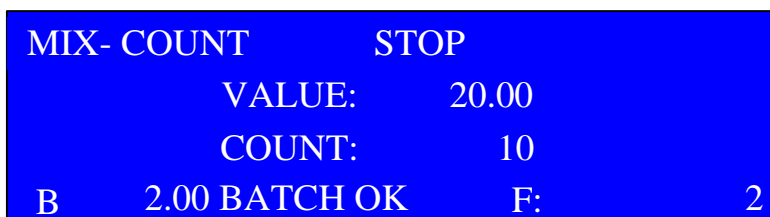
BATCH SET
CHANNEL: 1 VALUE: 2.00
BATCH: 0000

Enter into BATCH SET interface, press ,  key to switch the channel. Under one channel, press  key, the BATCH will flash, at this moment you can set the BATCH value through the numeric key  ~  (the upper limit is 9999). Press  key, you can clear the BATCH setting.

NOTES: The above steps are used for setting the BATCH number. If you need to set the BATCH, you need to turn on the BATCH function in system. Under main interface, press  key to turn on the BATCH on/off. When BATCH function is on, there is a B shown at the left corner; if there is no B, it means the BATCH function is turned off.

When one channel Batch No. setting is finished, you can come back to channel number selection interface by pressing  key and then repeat the above number setting way to set batch number for other target channels. After all settings are finished, press  key to quit from BATCH submenu to come back into main menu interface.

When the machine reaches set Batch number, the LCD display will show as follows:

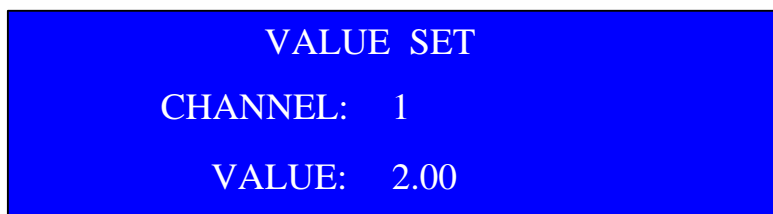








MIX-COUNT STOP
 VALUE: 20.00
 COUNT: 10
B 2.00 BATCH OK F: 2

For example, if you batch 10pcs for 2.00, when the quantity reaches 10pcs for 2.00, the machine will stop and show "2.00 BATCH



OK" and flash. At this moment, you need to clear the drawer for 2.00 and press CLR to clear the message, otherwise other key functions are not workable.

(2) VALUE

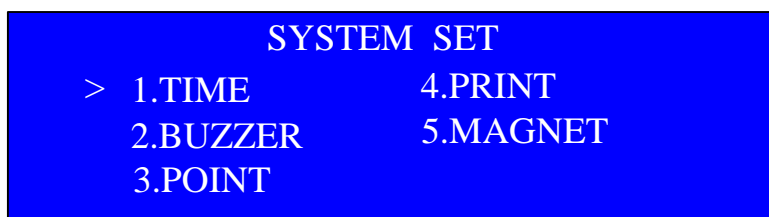





Under VALUE interface, press ,  key to switch the channel. Under one channel, press  key to fix the VALUE setting mode, the VALUE will flash. At this moment, you can change the value of this channel through pressing numeric key  ~ . Press  key, the setted the value can be cleared to be 0

Notes: The value is already set in the factory and the function is locked, so the user can not change the value.

When one channel Value No. setting is finished, you can come back to channel number selection interface by pressing  key and then repeat the above number setting way to set value number for other target channels. After all settings are finished, press  key to quit from VALUE submenu to come back into main menu interface.

(3) SYSTEM




Firstly, it will enter into SYSTEM SET submenu, press  or  key to make the cursor up and down. And then press  key to enter different setting interface.

1. TIME





>DATE: 2013-08-29
TIME: 05:44:32

Under this interface, if you need to update date and time, please firstly press **SET** key to make the cursor blinking and then by press  key to make the cursor moving. Directly press 0~9 numeric key to set your desired date and time. Press **CLR** key to clear data. After all settings are finished, press **ESC** key to return to main menu interface.

2. BUZZER





BUZZER: ON

Under this interface, please press  or  key to turn ON/OFF this function. After setting, press **ESC** key to return to main menu interface.

3. POINT







POINT: ON

Under this interface, please press  or  key to turn ON/OFF this function. After setting, press **ESC** key to return to main menu interface.

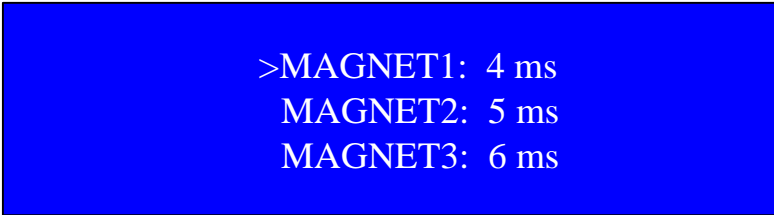
4. PRINT







>PRINT0: ON
BAUD : 9600

Under this interface, please press  or  key to choose PRINT 0 or set BAUD rate. Press **SET** key to choose either one, and then press  or  key to turn ON/OFF the function. After setting, press **ESC** key to return to main menu interface.

5. MAGNET



```
>MAGNET1: 4 ms  
MAGNET2: 5 ms  
MAGNET3: 6 ms
```

Under this interface, please press  or  key to choose MAGNET 1,2, or 3, and then press **SET** key to set solenoid activation time(suggested range is 3~9ms). By press  or  key, the time will be increased or decreased. After setting, press **ESC** key to return to main menu interface.

Notes: MAGNET 2 AND MAGNET 3 are reserved in software and user does not need to set it

(4) TOTAL



```
TOTAL:      0000017331
```

This interface shows a memory record of all counted coin quantity. You can press **ESC** key to quit from this TOTAL submenu to come back into main menu interface.

(5) TEST

This submenu is for production adjustments purpose only. It is not available for users.

(6) **LEARN**

This submenu is for coin self-learning parameter tests and adjustments. It is not available for users.

9. **Trouble Shooting**

During self-testing or machine working status, sometimes the LCD screen may display following error code:

(1) **ERROR ADJUST**



ERROR: ADJUST
CHECK THE SENSOR 0

·When it displays ERROR ADJUST, it means the signal of alloy sensor is abnormal, the self-test can not be done normally, please contact your local distributor for solution.

(2) **ERROR 01**



ERROR: 01
CHECK THE SENSOR 1

·When it displays ERROR 01, it means the IR transistor is blocked, please check the IR transistor and also the connecting cable. After the problem is solved, please press CLR key to enter into main interface. If the problem can not be solved, please contact your local distributor for solution

(3) **ERROR 02**



ERROR: 02
CHECK THE SENSOR 2

·When it displays such error message, it means there is foreign thing

covers the 2nd solenoid triggering sensor. Please check and clean this part, including all connecting wires check. After solving this problem, press **CLR** key to come back into main display modes interface.

(4) **ERROR 03**



ERROR: 03
CHECK THE SENSOR 3

·When it displays such error message, it means there is foreign thing covers the 3rd solenoid triggering sensor. Please check and clean this part, including all connecting wires check. After solving this problem, press **CLR** key to come back into main display modes interface.

(5) **ERROR 04**



ERROR: 04
CHECK THE SENSOR 4

·When it displays such error message, it means there is something wrong with the rail sensor. Please check if any rail place gets short-circuit, including all connecting wires check. After solving this problem, press **CLR** key to come back into main display modes interface.

(6) **ERROR 05**

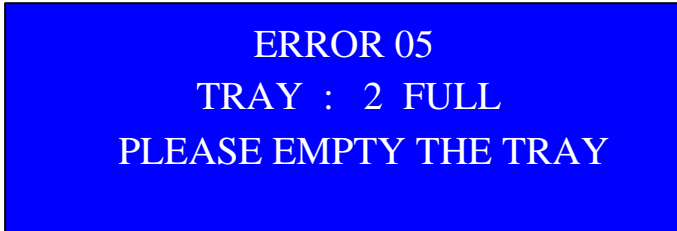


ERROR: 05
CHANNEL: 1,2,3

·When it displays such error message, it means there is short circuit point on the coin outlet drawer full warning sensor. Please check the coin outlet drawer and sensor connecting wires. After solving this

problem, press **CLR** key to come back into main display modes interface.

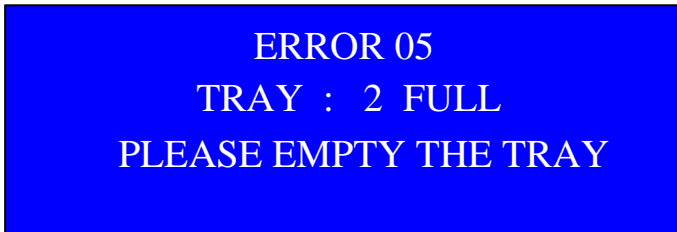
(7) **ERROR 06**



ERROR 05
TRAY : 2 FULL
PLEASE EMPTY THE TRAY

·When it displays ERROR 06, it means the Optical tube assembly for second solenoid is counting abnormally. Please check 1) if the side plate assembly is in good condition and the coins can run smoothly 2) if the optical tube assembly of second solenoid is well connected 3) if the optical tube assembly of second solenoid is broken 4) if the driving board, main board and AD board is in good condition.

(8) **ERROR 07**



ERROR 05
TRAY : 2 FULL
PLEASE EMPTY THE TRAY

When it displays ERROR 07, it means the optical tube assembly for third solenoid is counting abnormally. Please check 1) if the side plate assembly is in good condition and the coins can run smoothly 2) if the optical tube assembly of third solenoid is well connected 3) if the optical tube assembly of third solenoid is broken 4) if the driving board, main board and AD board is in good condition.

(9) **BOX 2 FULL**

WARNING
BOX:2 FULL
PLEASE CLEAR THE BOX

·When it displays such WARNING message, it means the genuine coin drawer or rejected coin drawer is full, please take out all coins. After this, press **CLR** key to come back into main display mode interface.

Notes: If there are any foreign things get jammed on the rail, the dropped coins may not be counted, which will cause counting mistake. Therefore, please clean all coins by moving foreign things before sorting.

10. Precautions

- Power cord using the machine configuration.
- Unplug the power cord before moving the machine.
- Avoid operation under direct sunlight.
- Do not put your hands, tools and clothes into the hopper to avoid personal injury or malfunction of the machine.
- Don't open the Visible Cover during operation.

11. Daily Maintenance

- Be sure to unplug the power cord before daily maintenance.
- Please clean the rail and side board at least once a day.
- Clean the disc and hopper at least once a day with a brush.
- If the machine needs maintenance or spare parts, please contact the local supplier.

12. Accessories

- | | |
|----------------|-----|
| 1. Power Cable | 1pc |
| 2. Nylon Brush | 1pc |
| 3. Coin Scoop | 1pc |
| 4. Turn brush | 1pc |

*** In the interests of our ongoing policy of continual product improvement, specifications are subject to change without prior notice. ***