

# **Technical Manual of CAS-008 Coin Recycling Module**

# 1. General Description

CAS-008A coin recycling module is the main module for AFC field developed by GRG Banking after years of accumulation. It consists of a coin receiver gate, a coin recognizer, a coin dispenser, and a circular card box. Randomly equipped with coin reserve change box and coin recycling box. Accurately and accurately receive and recognize coins put in by passengers as required, and achieve functions such as original coin return, dispense, coin clearing, and module fault self-diagnosis. The module is highly reliable, easy-to-use, and easy to maintain.

## 2. Module

CAS-008 Coin Recycling Module

## 3. Terms

**cctalk:** A low speed serial communication interface standard for cash processing industry.

**MB:** Storage capacity unit, 2<sup>20</sup> bytes

**FLASH:** A non-volatile memory that can be byte programmed and can only be erased by block

**RAM:** Random access memory

**bps:** Communication speed unit, bits per second

## 4. Appearance

### 4.1 Overall appearance

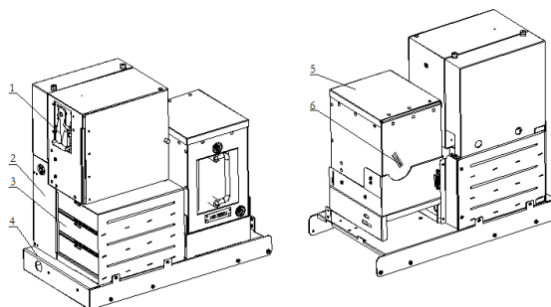


Figure 1

1.Coin gate component   2. Recycling box cover plate   3. Recycling box   4. Module base  
5.Coin changing preparing box   6. Coin exit

## 4.2 Dimension

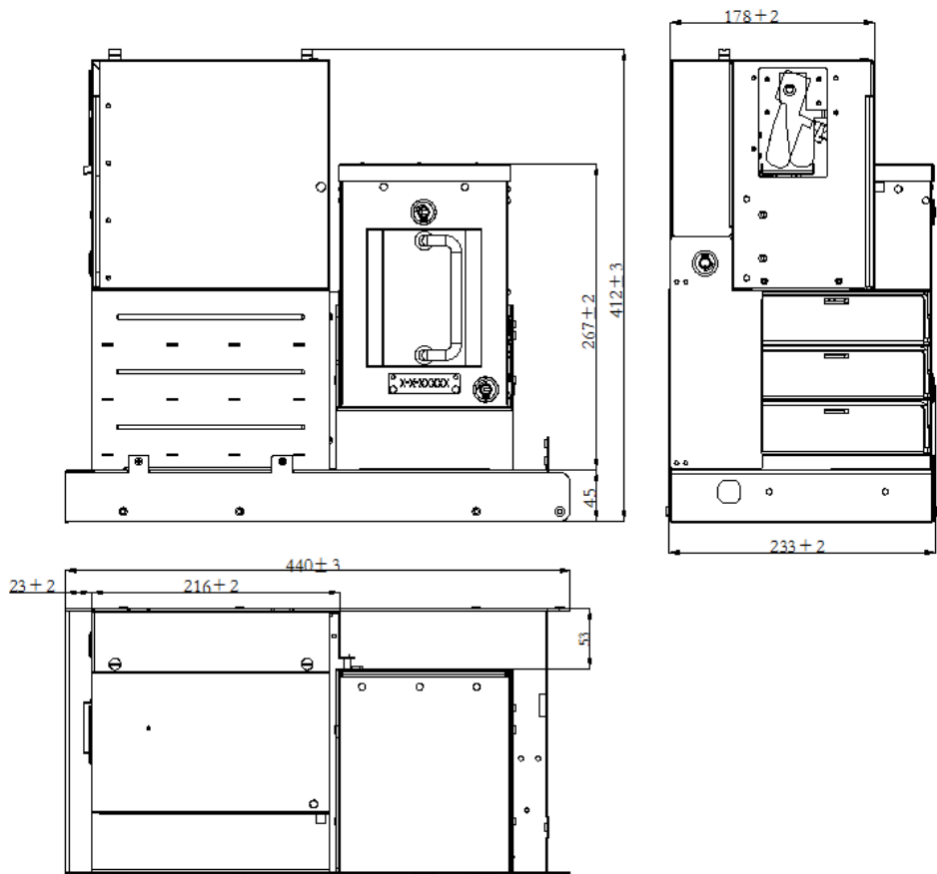


Figure 2 Module dimension

CAS-008 adopts three independent circular boxes and three reserve change boxes corresponding to different coin values. After the coin is dropped and received, it flows to each corresponding circular box according to the needs of the upper layer, or it is received into the coin receiving box.

The coins in the changing preparing box are manually added by the operation personnel. The coins in the recycling box come from the coins received by the recognizer, ensuring that the received coins do not mix with the added coins.

## 4.3 Module Workflow Diagram

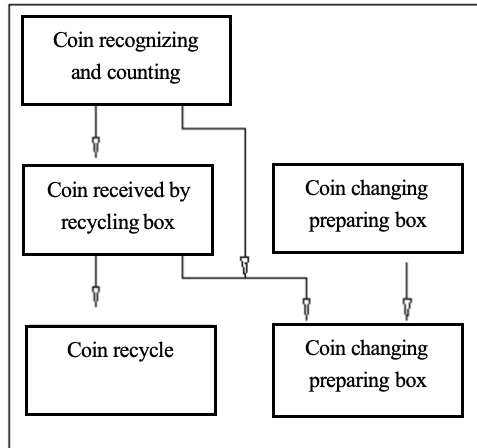


Figure 3 Module workflow diagram

## 5. Functions

- Identify all coins issued in the first and second editions in used of Malaysia
- The changing preparation box has a high-speed change speed of 3-5 coins per second
- With coin return function
- Recycling function from coins receiving
- Randomly equipped with a recycling box with a unique electronic identification
- Module offline self-diagnosis function for easy debugging

## 6. Features

- Convenient on-site replacement of commonly used vulnerable parts and easy maintenance
- The backup change box comes with dedicated lock and locking design, ensuring that non-contact with coins by operators during the coin adding process
- Modular design for each component, which is easy to disassemble and assemble
- The compact module design reduces the internal space occupancy of the entire machine

## 7. Technical Specification

### 7.1 Electrical Technical Specifications

Item		Specification
Coin receiver	Interface	cctalk
	Communication Speed	9600bps
Power supply	Voltage	24VDC $\pm$ 10%, 12VDC $\pm$ 10%
	standby power	7.5W
	Working Power	20W
Communication Interface		RS232
Storage		1MB FLASH/8MB RAM
Weight		About 20Kg (without coins)
Size		233(W) x 440(D) x 412(H) mm

## 7.2 Performance Specification

Item		Specification
Coin receiver	Counterfeit coin recognition rate	≥99.9%
	Real coin recognition rate	≥99%
	Recognition ability	Coins of at least 32 sizes or denominations
	Coin type	Suitable for various domestic and international coins, including the first and second editions of coins issued in Malaysia
	Recognition speed	≥No less than 2coins/s
Change box	Amount	3 boxes
	Capacity	≥1000 coins
	Life	≥750K coins
	Changing speed	≥6~7coins/s (When not idling or flipping)
	Emptying rate	≥99.9%
Recycling Box	Amount	3 boxes
	Capacity	Each denomination has a minimum recycling capacity of 50 coins and a total recycling capacity up to 150 coins
Working Environment	Temperature	0 °C ~ 45 °C Degree Celsius
	Humidity	20% ~ 75% RH (Non condensed state)
	Temperature changing rate	10°C/Hour
	Humidity changing rate	10 %/Hour



**Guangzhou GRG Intelligent Technology Solution Co., Ltd**

**Phone: +86 15915877160 (Wechat/WhatsApp)**

**Add: 9,11 Kelin Road, Science City, High-tech Industrial Development zone, Guangzhou, China**

**Website: [www.grgintech.com](http://www.grgintech.com)**