

# **Compact Cash Recycling System CCS-30 Technical Manual**



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## **1 Overview**

The compact cash recycling system CCS-30 can realize the functions of banknote and coin recognition, counting, depositing, and circulating change. It has high reliability, ease of use and maintainability. It realizes self-circulation through the change of banknotes and coins, reducing the time spent on replenishment, counting, and replacement of cash boxes, reducing the time for daily maintenance, reducing dormant cash in automatic equipment, cash exposure risks, statistical cost losses, reducing downtime for checkout, cash transportation, etc., and improving overall operational efficiency.

Main application scenarios: automatic fee collection and change equipment in retail systems, automatic ticket vending machines in public transportation, and automatic equipment that requires cash circulation and change functions, etc.

## **2 Model**

Compact Cash Recycling System CCS-30

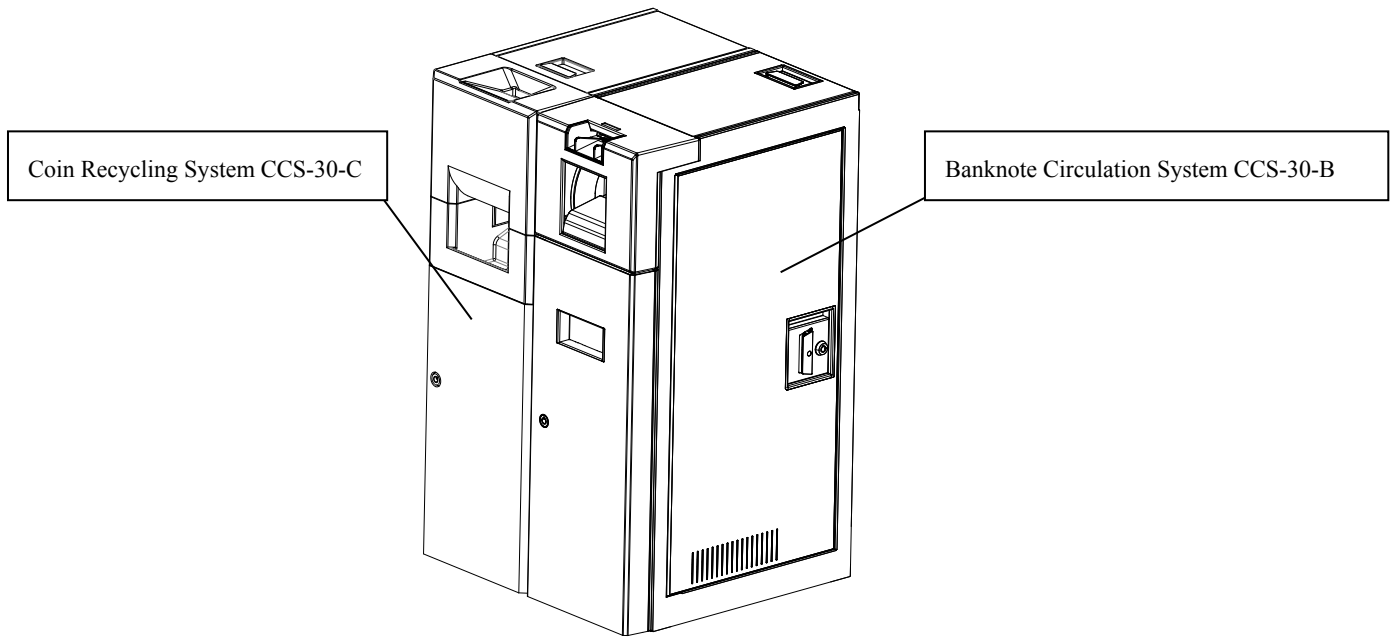
--Banknote Circulation System CCS-30-B

--Coin Recycling System CCS-30-C

## **3 Size**

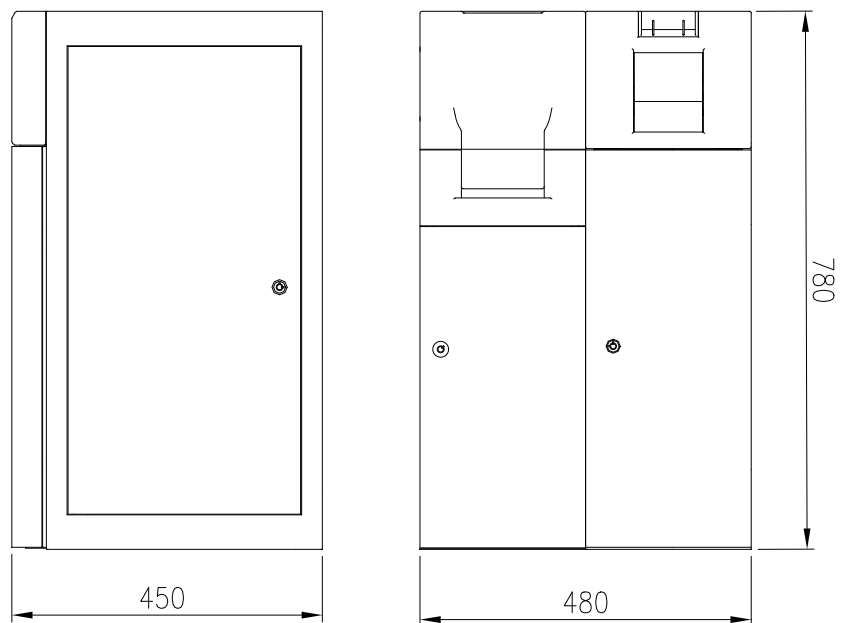
### **3.1 System composition**

The Compact Cash Recycling System CCS-30 consists of the Banknote Recycling System CCS-30-B and the Coin Recycling System CCS-30-C.

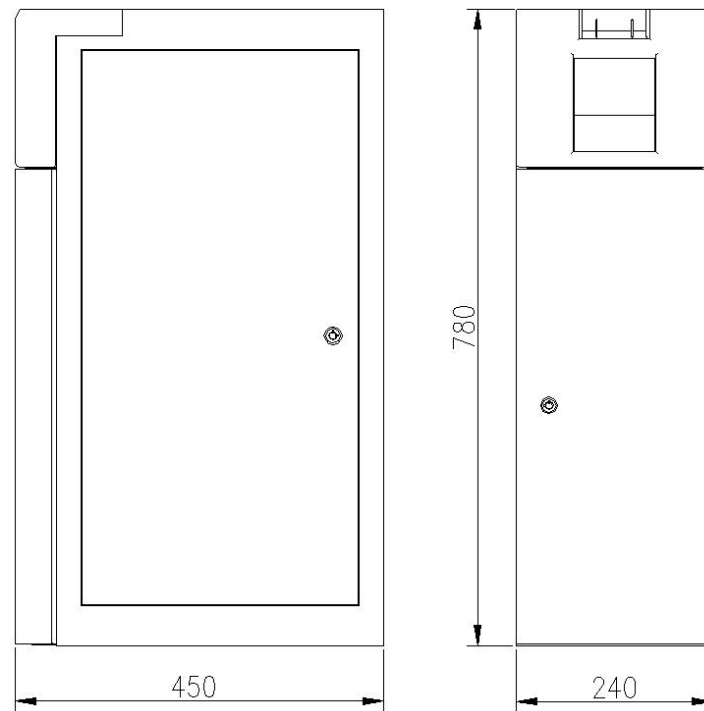


### 3.2 Dimensions

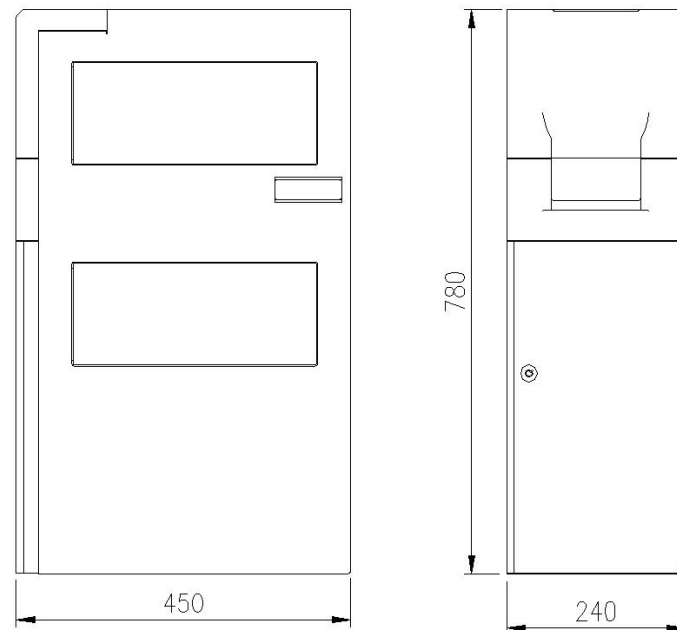
CCS-30 Compact Cash Recycling System Dimensions: W480 x D450 x H780 (Unit: mm)



CCS-30-B banknote circulation system dimensions: width 240 × depth 450 × height 780 (unit: mm)



CCS-30-C coin circulation system dimensions: width 240 × depth 450 × height 780 (unit: mm)



## 4 Features

### Banknotes:

- Based on experienced banknote recognition and counterfeit detection technology, multi-spectral full-width image scanning (CIS technology) and full-width magnetic signal

detection, high-security banknote recognition;

- The banknote receiving and correcting device ensures the smooth operation of banknotes;
- High-speed banknote processing speed, receiving speed 3 pieces/second, change speed 3 pieces/second;
- Supports 30-bundle banknote input and 30-bundle banknote change;
- Large circulation capacity, supports up to 4 different denominations, each denomination has a circulation capacity of 100 pieces, and can flexibly configure the change denomination;
- Intelligent banknote sorting, banknotes that are not suitable for circulating change are directly deposited into the cash box to reduce the rate of banknote jams;

#### **Coins:**

- Based on the experienced coin recognition and counterfeit detection technology, multi-frequency and multi-coil comprehensive detection methods are adopted to identify and detect coins in multiple dimensions such as coin material, diameter, thickness, etc.;
- High-speed coin processing speed, receiving speed 5 coins/second, coin output speed 5 coins/second;
- Supports a one-time investment of 50 coins and a coin output of 50 coins;
- Large circulation capacity, supporting up to 8 coins of different denominations, with a circulation capacity of up to 400 coins of a single denomination (based on the RMB 50 cents specification);
- It has the function of foreign body discharge, which can automatically discharge foreign body after each transaction;
- With forgotten coins recycling function, the coins forgotten by customers can be automatically recycled to avoid cash loss;
- Automatic coin clearing function: after the circulating hopper is full, the coins are automatically cleared into the recycling box;

## **5 Technical parameters**

### **5.1 Banknote Performance Parameters**

<b>Item</b>		<b>Performance Specifications</b>
<b>Cash in</b>	Cash input capacity	30 sheets
	Cash input method	Whole stack, vertical banknote feeding, no restriction on direction
<b>Identify</b>	Currency	Support 100 different denominations of banknotes (one or more

		countries) at the same time
	Material	Paper, plastic-based (polymer)
	Real banknote acceptance rate	≥99%
	Counterfeit currency recognition rate	≥99.9%
	Banknote size	Length range: 120~180 mm; Width range: 60~85 mm
<b>Detection Methods</b>	Optical	Full-frame image sensor (CIS technology), no less than 100,000 measurement points per banknote
	Magnetic	Full-width magnetic sensor detection
<b>Speed</b>	Receiving speed	3 sheets/second
	Change speed	3 sheets/second
<b>capacity</b>	Temporary Storage	100 sheets (using one of the recycling boxes)
	Number of circulation boxes	4 pcs
	Circulation box capacity	The capacity of a single circulation box is 100 sheets (4 circulation boxes have a total of 400 sheets)
	Deposit box capacity	700 sheets
	Cash replenishment box capacity (optional)	500 sheets
<b>Cash out</b>	Cash outlet capacity	30 sheets
	Cash withdrawal method	Whole stack
	Cash outlet protection	With cash outlet baffle
<b>Upgrade</b>	Upgrade method	With online download and upgrade function

## 5.2 Coin performance parameters

Item		Performance Specifications
Coin-operated	Coin-operated mode	Multiple pieces at one time
	Coin slot capacity	50 pieces (any denomination)
<b>Identify</b>	Currency	Supports 250 coins of different denominations (one or more countries) at the same time

	Material	Metal material
	Real currency acceptance rate	≥99%
<b>Detection Methods</b>	Electromagnetic testing	Multi-coil and multi-frequency detection of the coin surface and core material, as well as the coin size, etc.
<b>Speed</b>	Receiving speed	5 pieces/second
	Change speed	5 pieces/second
	Number of cyclic hoppers	8 pieces
	Cycle Hopper Capacity	The capacity of a single HOPPER is 400 pieces (calculated at RMB 50 cents)
	Coin Box	3000 pieces (calculated based on RMB 50 cents)
<b>Foreign body removal</b>	Coin slot	Supports foreign body removal
<b>Cash out</b>	Coin outlet capacity	50 pieces
	Forgotten Recycling	With coin outlet recovery function
<b>Upgrade</b>	Upgrade method	With online download and upgrade function

### 5.3 Environment

<b>Environment</b>	Operating temperature	0°C ~ 50°C
	Storage temperature	-20°C ~ 60°C
	Humidity	20%RH ~ 90%RH (Non-condensing)

### 5.4 Electrical technical parameters

Item		Specifications
<b>Electrical Interface</b>	Power supply	AC110V-240V
	Rated frequency	50-60Hz
<b>Communication</b>	Communication	RS232

<b>interface</b>	Protocol	
	Baud rate	19200 bps
	Inspection method	No verification
	Communication parameters	Data bit: 8 bits Start bit: 1 bit Stop bit: 1 bit
<b>Electromagnetic compatibility</b>	Comply with relevant national standards GB/T 17626	