Desktop Banknote Deposit Machine

DBA-15Z

Technical Manual

1. Overview

The desktop banknote deposit machine is a terminal device that can realize the functions of receiving, identifying and storing whole stacks of banknotes. It can identify the currency, denomination and authenticity of banknotes and has high reliability, ease of use and easy maintenance. Through automatic counting, identification, storage and recording of banknotes, it reduces the operation time of manual identification and counting, effectively monitors and manages customers' cash flow in real time, and ensures clear and accurate accounts.

2. Model and meaning

Model: DBA-15Z

Terminology: DBA — Desktop Bill Acceptor

3. Appearance and composition

3.1. Overall appearance

Figure 3-1 DBA-15Z overall appearance diagram (for reference only)

3.2. Product composition

The desktop banknote deposit machine DBA-15Z consists of three parts: the upper module, the lower module, and the banknote deposit box, as shown in the following figure:

Figure 3-2 DBA-15Z structure diagram (for reference only)

3.3. Dimensions

Desktop banknote deposit machine DBA-15Z size: width 420 × height 664 × depth 232 (unit: mm)

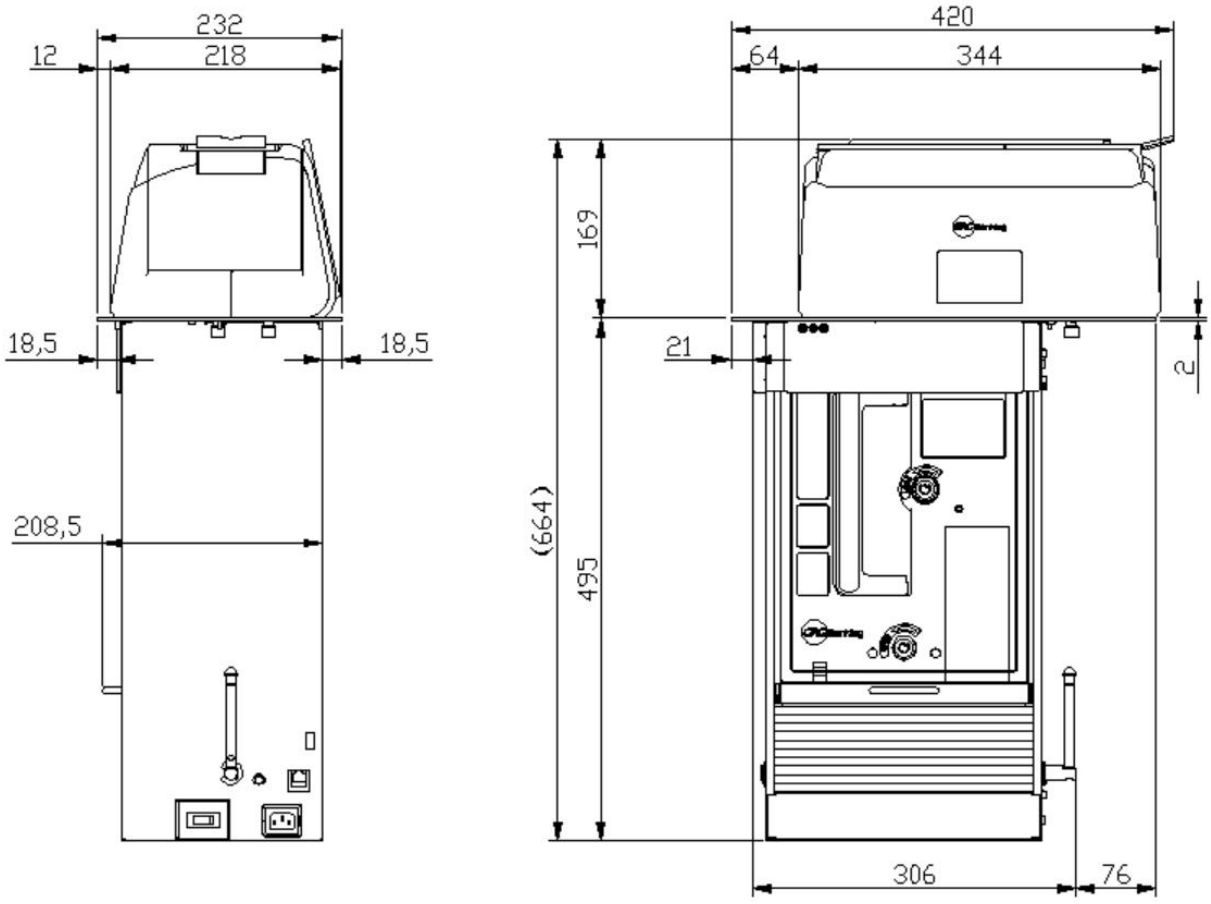

Figure 3-3 DBA-15Z dimensions

4. Features

- Insert the whole stack of banknotes, support 4 directions, fast deposit
- Based on experienced banknote recognition and anti-counterfeiting technology
- Compact and secure international multi-currency banknote acceptance and recognition system
- The cash box has two locks, and there is an interlocking mechanism between the two locks. Operation and maintenance and account counting are decentralized to ensure cash safety
- The cash box comes with an electronic ID for easy automatic identification and management
- Banknotes are neatly stacked in the cash box
- Compact structure, small space occupation
- Easy to maintain, no tools are needed to quickly troubleshoot card failures on site

5. Features of each module

Upper module:

- Banknote insertion and withdrawal realize zero line of sight obstruction; banknote insertion design conforms to ergonomics
- Supports a maximum of 100 banknotes in a stack, with an average processing time of 5 sheets per second
- Dual screen design with deposit information display and operation screen
- With exit gate, high safety
- Three-line anti-counterfeiting technology, up to 100,000 identification scanning points
- Multi-spectral full-width image scanning (CIS technology) and full-width magnetic signal detection, high-security banknote recognition
- Record and save the banknote serial number to realize the banknote serial number tracking function (optional)

Lower module:

- Industrial-grade electronic components, adaptable to various high and low temperature, high humidity and other environments
- With cash box lifting mechanism, it can adapt to various application scenarios

Deposit cash box:

- Durable, double lock design (replace the cash box and open the cash box), and interlocking mechanism for secure cash box
- Electronic identification tag with unique identity
- Independent withdrawable cash box, no electrical connection, high reliability
- The banknotes in the cash box are neatly stacked

6. Product parameters

6.1 Technical Parameters

Item		Technical specifications
Cash in	Cash input direction	Vertical banknote feeding
	Orientation	ulimited
Identify	Currency	Support 100 different denominations of banknotes (one or more countries) at the same time
	Material	Paper, plastic-based (polymer)
	Genuine banknote acceptance rate	≥99%
	Banknote size	Length range: 150~170 mm; width range: 60~83 mm.
Detection Methods	Optical	Full-frame image sensor (CIS technology), no less than 100,000 measurement points per banknote
	Magnetic	Full-width magnetic sensor detection
Speed	Accepting speed	5 sheets/sec
Capacity	Full stack of banknotes	≤100 sheets
	Temporary Storage Area	100 sheets
	Deposit Box	2000 sheets ± 50 sheets (length 233mm, width 146mm, height 330mm)
Environment	Operating temperature	0℃～50℃
	Storage temperature	-20℃～60℃
	Humidity	20%RH～90%RH (non-condensation)
Upgrade	Upgrade method	With download and upgrade online function
Core Modules		ARM (MAX frequency = 1.8G, 6 cores), 2G memory
Storage Module		Onboard high-speed storage 16G
Operating system		Android
Display		10.1 inches, 1920*1200 pixels, display ratio 16:10
Operation screen		4.3 inches, 800*480 pixels, with capacitive touch
USB interface		1*USB 2.0

Network Interface	10/100MB adaptive RJ45 Ethernet, wifi
Electromagnetic compatibility	Comply with relevant national standards GB/T 17626

Table 6-1 Performance parameters

6.2 Electrical parameters

Item		**Specifications**
Electrical Interface	Power suppl	220VAC 50Hz
	Movement power	Standby 30W Average 120W
Communication interface	Communication Protocol	TCP/IP
	Physical Interface	RJ45

Table 6-2 Electrical technical parameters

6.3 Reliability parameters

The working environment is room temperature 20℃, humidity 50%RH

Item	**Technical indicators**	**Remark**
Banknote jam rate	Less than 3/100000	More than 70% new, no damage, no stain, no wrinkles
MCBF	300,000 times	Work in a standard working environment and in accordance with standard specifications (Note 1)
Working life	10 years	Work in a standard working environment and in accordance with standard specifications

Note: Does not include coin jams or self-recoverable failures

Table 6-3 Reliability parameter table