E716 RFID Smart Checkout Terminal User Manual

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Declaration

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1. Product Introduction

1.1. Purpose and Introduction

The E716 smart checkout terminal leverages RFID technology to retrieve data from the embedded chips within tableware, enabling instantaneous meal pricing. Built on an intelligent operating system, this smart dining counter terminal consolidates facial payment, contactless card tap-and-go payment and QR code payment into a unified unit, delivering an ergonomic, multi-channel payment experience for end users. Featuring a dual-screen independent display and dual capacitive touchscreen architecture, it supports concurrent operation by diners and on-site maintenance personnel, substantially elevating overall user experience.

1.2. Product Appearance

Right channel. Dimensions are shown in Figure 1.





Figure 1：Right channel

Left channel. Dimensions are shown in Figure 1.

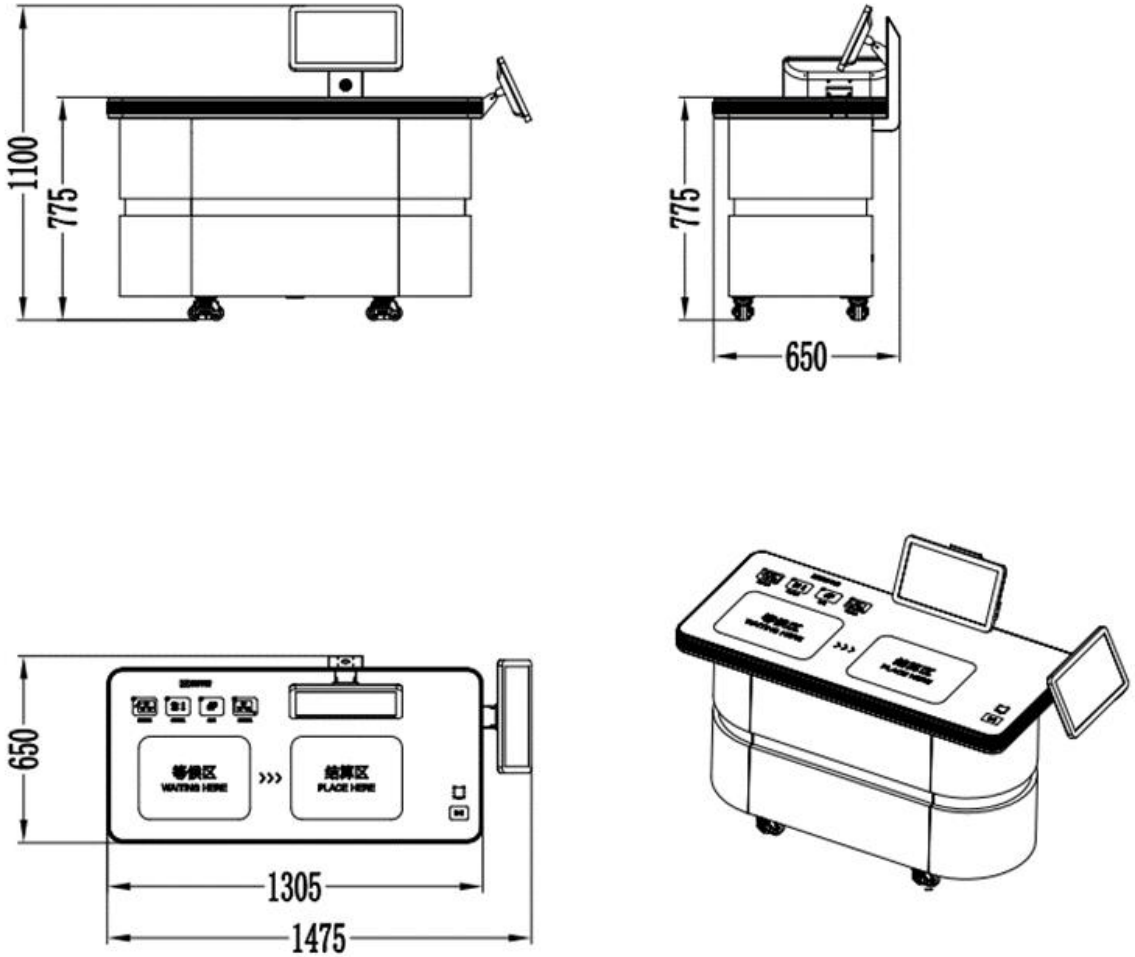




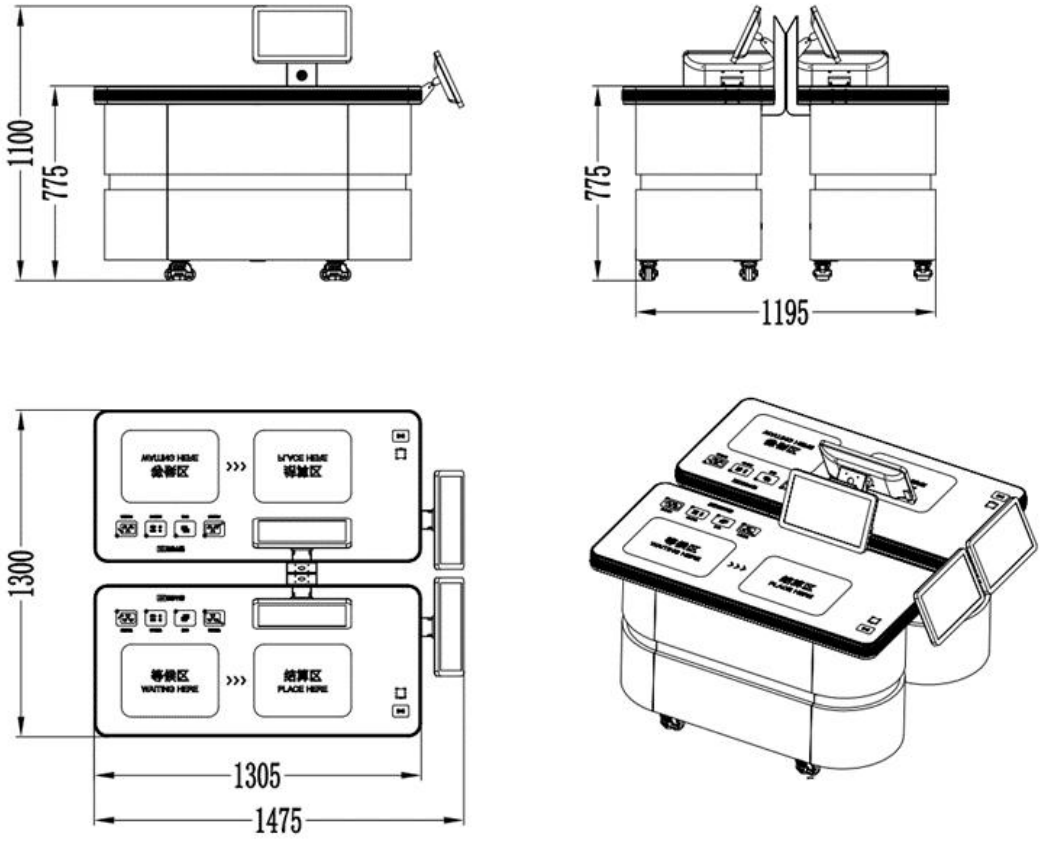
Figure 2：Left channel



Figure 3：Dual channel



Single-channel (Left channel, Right channel)）



Dual-channel

1.3. Product Features

- Supports settlement via multiple payment methods, including facial recognition, contactless card, and QR code scanning (both forward and reverse scanning).
- Supports offline 1:N facial recognition.
- Equipped with a binocular camera and supports liveness detection.
- Supports multiple communication methods, including TCP/IP, Wi-Fi, and Bluetooth.
- Offline Storage Capacity: Transaction records can be automatically uploaded. When offline, they are stored locally and automatically uploaded upon network recovery. Supports storage of up to one million offline records.
- Integrated Dish Dispensing & Checkout: Functions as both a checkout terminal and a dish-dispensing machine, reducing overall capital investment.
- Unified Identification & Payment: Serves as both a tableware identification

device and a payment-settlement terminal, delivering fast and highly efficient operations.

- Offline Operation: Dish information and pricing are pre-written into the tableware chips, eliminating the need for network verification. Payments are processed fully offline, and all transaction data automatically syncs to the backend once network connectivity is restored.
- Equipped with RS232 and USB interfaces, allowing integration with third-party hardware devices.

1.4. Technical Specifications

Central Processing Unit	A 64-bit octa-core CPU architecture.
Memory	16G FLASH，2G DDR3
Display / Touch Screen	Main screen: 15.6-inch color display, 1080P resolution, multi-touch capacitive screen Secondary screen: 15.6-inch color display, 1080P resolution, multi-touch capacitive screen
QR-Code Scanning	Supports QR Code, Code 128/39 and other symbologies; enables 360° rotation reading and ±45° skew/inclination tolerance. Supports recognizing common-used offline codes.
Facial-recognition camera	Dual-lens infrared camera with 2-megapixel resolution
Keypad	On-screen virtual touch keys
SAM Card Slots	1 PSAM card slots
Contactless Card Reading	Supports contactless M1 and CPU cards; complies with ISO/IEC 14443 specifications and TYPE A/B standards.
External Interfaces	1 RJ45 port, 1 12V port, 1 USB port ；
Communication Modes	Ethernet: 10/100 Mbps auto-negotiation. Wi-Fi: Compliant with IEEE 802.11 wireless standards; supports security authentication and various encryption types, operating on the 2.4 GHz band. Bluetooth: Bluetooth 4.0 specification. RS232: Supports multiple baud rates with 5 V power output (power output is software-controlled).
Audio-Visual Indication	Real-human voice notification
Power Supply	Adapter Input: AC 220 V, 1 A Output: DC 12 V, 5 A

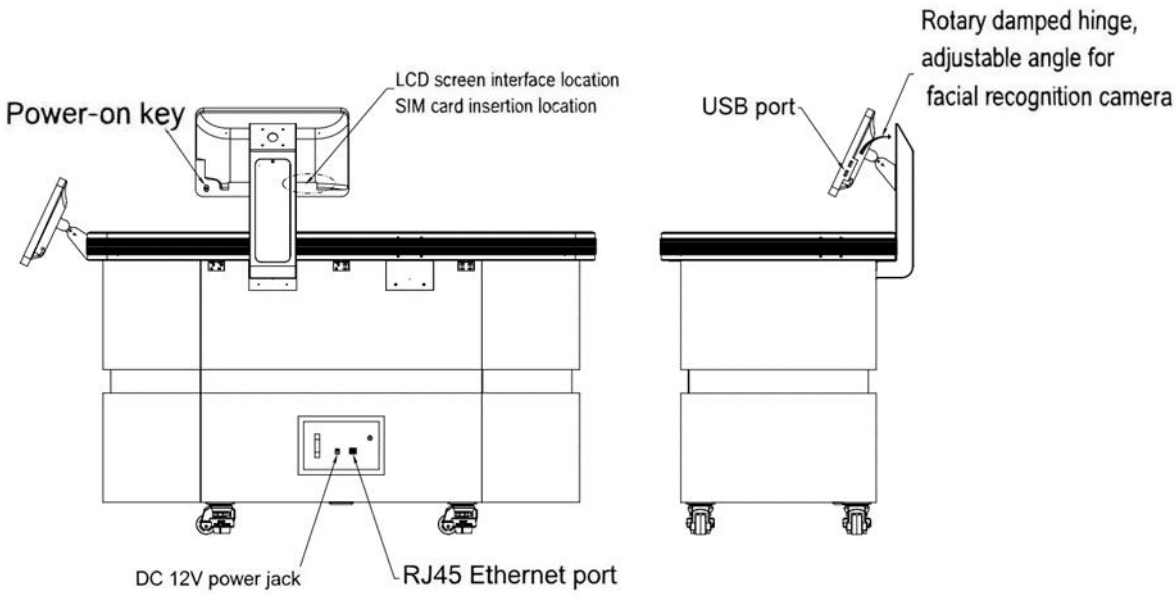
Operating Environment	Operating temperature range: -10 ℃ to 50 ℃ Relative humidity range: 10% to 93% (non-condensing)
Storage Environment	Storage temperature range: -40 ℃ to 80 ℃ Relative humidity range: 5% to 95% (non-condensing)
Overall dimensions	Desktop type:1475 × 650 × 1100 (mm × mm × mm)

2. Installation Instructions

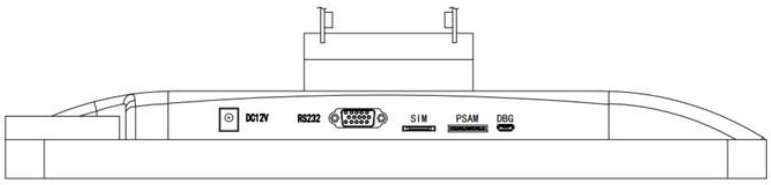
2.1. Package Contents

Accessory Name	Unit	Quantity
Smart Checkout Terminal	Unit	1
Product Manual	Copy	1
Warranty Card	Page	1
Certificate of Conformity	Copy	1
Power Adapter	Piece	1
Power-box Key	Piece	1

2.2. Interface Description



A
2:1

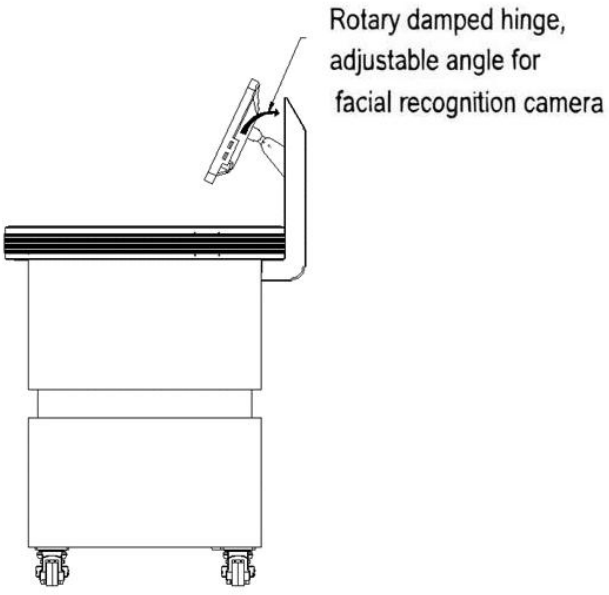


Main LCD interface description

Label	Description	Note
DC12V	For production debugging only;	
RS232	For connecting external RS232 slave devices, with built-in 5 V power supply;	
PSIM	For 4G expansion (optional);	
PSAM	PSAM card holder;	
DBG	Micro-USB terminal for Android debugging.	

2.3. Installation Steps

1) Placement:The E716 features a floor-standing design. Once positioned on a designated horizontal surface, lock the four casters of the unit to secure it in place. The facial-recognition camera must not be pointed directly at strong light sources.
2) Power supply:The supplied power adapter comes with a 3-metre cable and adopts a GB-standard three-pin plug for AC 220 V input.
3) Network:A GB-standard RJ45 port is integrated on-board.
4) Interfaces:Physical RS232 communication is provided via a GB-standard DB9 connector.
5) Height and Camera Angle: The camera angle is adjustable within the range of 0° to 15°. Adjustment shall be made with reference to the horizontal-surface height, so as to achieve optimum recognition performance for users with a height of 145 cm-185 cm at a working distance of 70 cm. Please refer to the figure below for camera-angle adjustment.



※※※ Simulated Payment: Once the device has been activated, one facial-recognition payment transaction must be performed.

3. Operation Instructions

1) Power-on:Press and hold the power button for approximately one second. The blue indicator on the button will light up, signifying successful power-up.
2) Power-off / Reboot:Press and hold the power button for about three seconds. A dialogue box will appear on the display. Select the corresponding option to complete power-off or reboot.
3) Forced shutdown:Press and hold the power button for roughly 15 seconds. The blue indicator will go out, indicating the unit has been powered down successfully.

4. Precautions / Daily Maintenance

1) It is recommended to use a power strip with a fuse and ensure reliable grounding.
2) The power adapter shall not be enclosed or covered. Poor heat dissipation during long-term operation may cause fire hazards.
3) Damage to the power cord is prohibited. The device shall not be used if the power cord is worn or damaged.
4) Before connecting the power supply to the AC socket, verify that the socket output voltage complies with the rated operating voltage of the device.
5) The device shall be placed on a stable indoor platform. Installation and placement in areas with direct sunlight, high temperature, humidity or excessive dust is prohibited.
6) After the unit has been placed in its designated position, lock all swivel casters to prevent unintended movement.
7) The device shall be kept away from all types of liquid.
8) Insertion of any foreign objects into any interface of the device is strictly prohibited, as such operation may cause permanent damage to the equipment.
9) In the event of device failure, contact professional POS maintenance personnel. Unauthorized disassembly and repair by users are not permitted.
10) Prior to cleaning, power off the device thoroughly. Wipe the equipment body with a soft dry cloth. Do not use wet cloths or chemical solvents such as gasoline, alcohol and diluents.

5. Troubleshooting

1) Camera fails to activate:If the camera cannot be launched during APP payment, force-quit the APP and watchdog program. Next, open the native Android camera to verify its functionality. If the built-in camera works properly, a hardware fault can be ruled out; contact after-sales staff to reinstall and configure the application.
2) Scanning module cannot decode normally:First check the screen brightness of the mobile phone. Insufficient brightness may lead to decoding failure. If the issue persists, consult after-sales technicians to identify whether a hardware defect exists.
3) Should a system error occur following a reboot after OTA firmware upgrade, please contact after-sales personnel. The firmware will need to be reflashed via USB.
4) TCP communication failure:Verify that network parameters are correctly configured and no network restrictions have been imposed by the connected server.
5) Wireless communication unavailable:Confirm smooth access to the designated IP of the IoT SIM card and check that the targeted-IP settings are correct.