

# Android Bus Validator E60 an instruction manual



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Fcc Warning .....	错误！未定义书签。

# Chapter 1 Preface

## 1.1 Purpose of the manual

The "User Manual for XiaMen Lenz Car Payment Intelligent Terminal E60" describes the functions, performance, installation, configuration methods, and accessories of this series of products. By reading this manual, users can set up this series of products according to their usage environment and needs, and quickly familiarize themselves with the product.

## 1.2 Precautions

Please install the equipment in a dry and ventilated place; Do not install the device in areas with depressions that may accumulate water or where liquids may drip;

Adequate space should be reserved around the device to facilitate normal heat dissipation;

Please do not install the device on unstable boxes or chairs, as it may cause serious damage if dropped;

Please ensure that the working environment of the equipment is clean. Excessive dust can cause electrostatic adsorption, which not only affects the lifespan of the equipment but also easily leads to communication failures;

The working location of the equipment should not be shared with the grounding device or lightning protection grounding device of the power equipment, and should be as far away as possible;

The power supply range of the equipment is DC 8-40V, and it is strictly prohibited to use power supplies with high or low input voltage to power the equipment;

Do not replace any components, especially SIM cards, PSAM cards, SD cards, etc., while the device is live.

## 1.3 Environmental protection

This product meets the design requirements for environmental protection, and its storage, use, and disposal should comply with relevant national laws and regulations.

# Chapter 2 Product Description

## 2.1 Product Introduction

E60 in car intelligent POS is a new type of in car intelligent POS terminal developed based on

current market demand, which integrates multiple payment methods. Using Spreadtrum quad core 64 bit ARM Cortex-A53 processor technology, 4G full network core platform, Android 10 operating system, the product has strong performance, supports 4G mobile communication standards, Lan networking, and also supports GPS, Beidou, GLONASS positioning systems. It is a full payment terminal that integrates non-contact card readers, QR code scanning, mobile NFC, as well as multiple payment methods such as Apple Pay, Samsung Pay, Huawei Pay, UnionPay, EMV, ODA, 2.4G RCC, etc.

## 2.2 Product Features

- Beautiful and innovative appearance: integrated design, ultra-thin body, overall beautiful and generous;
- Adopting advanced ARM Cortex-A53 4-core processor with a main frequency of 2.0GHz, it has strong operational stability and fast response speed;
- Rich peripheral extension communication interfaces. The physical form of this interface is M16-10 pin aviation head interface, with standard configuration of 2 RS232 interfaces;
- Strong anti-interference ability. The power supply can operate normally within a wide voltage range of +10V to +36V, with functions such as reverse connection, automatic protection against overvoltage and overcurrent, and automatic recovery. It can work normally in harsh environments such as ignition, braking, low temperature, acceleration, and climbing; When the power supply fails or is replaced, the card swiping data saved by the car mounted device is not affected; Power maintenance is convenient and fast.
- Adopting IP53 shell protection design, it can effectively prevent dust, shock, and water;
- Easy and fast installation, can be horizontally and vertically laid flat on steel pipes, sturdy and firm.

## 2.3 Product Features

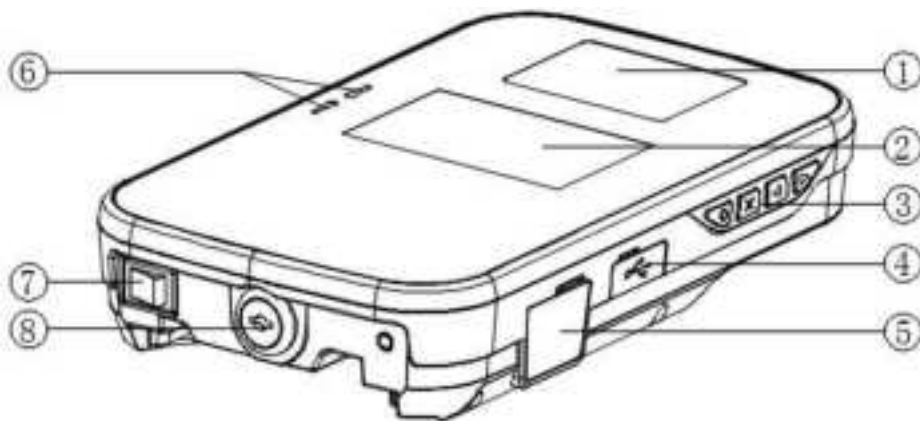
Type	Function	Describe
QRScanner	QRScanner	Support WeChat payment code for online transactions
		Support online transactions with Alipay payment codes
		Support WeChat ride codes for offline transactions
		Support offline transaction of Alipay boarding code
		Support UnionPay Cloud QuickPass QR Code for online transactions
		Support other self-developed QR codes for online and offline transactions
		Union Card

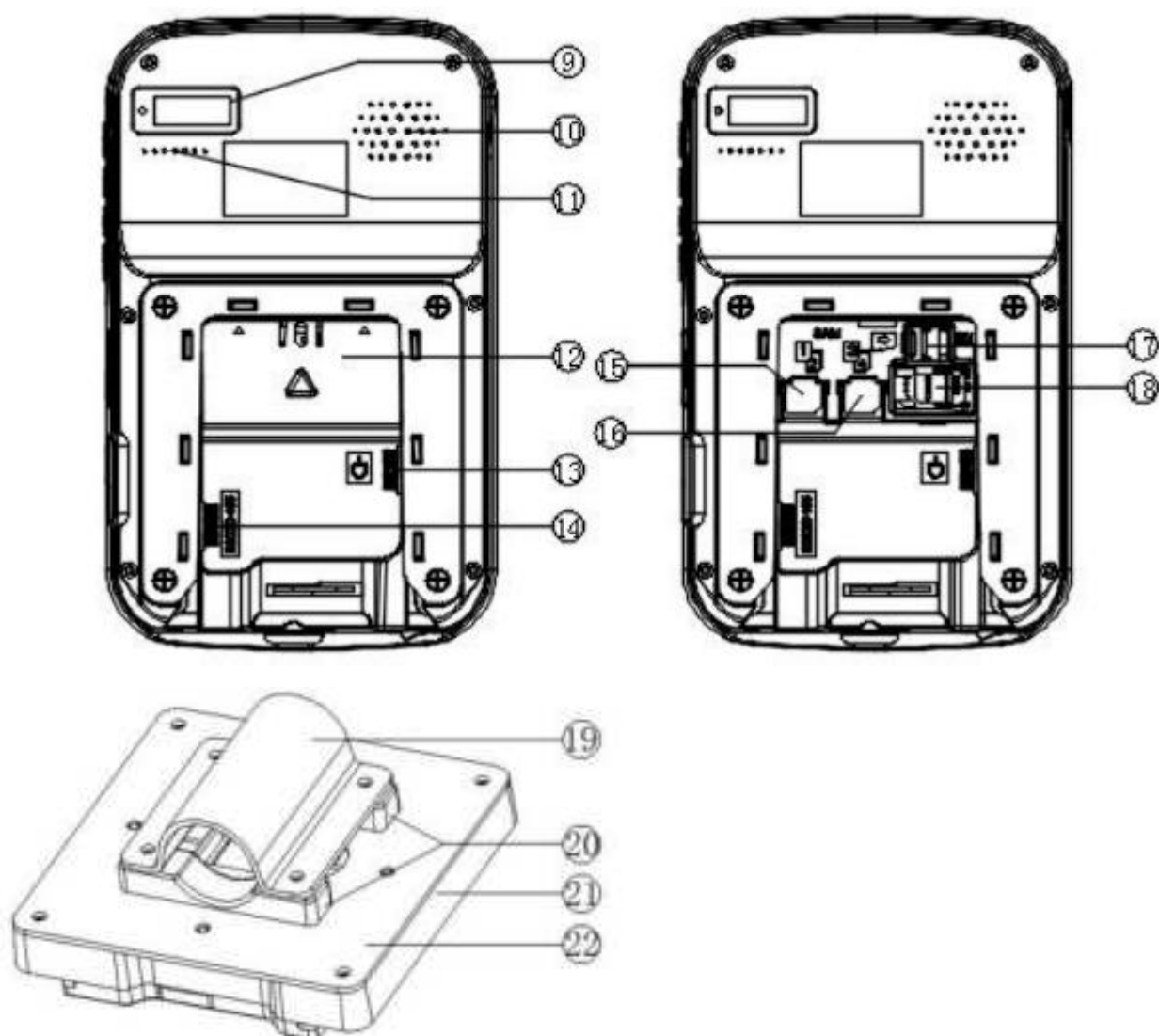
Contactness card reader	Contactness card reader	EMV Card
		Support Apple pay\Samsung pay\Huawei pay
Communication	4G\3G\2G	Supports 4G standard, capable of real-time high-speed upload and download of transaction information, and also supports WIFI/blue Dental wireless connection, convenient for expanding applications
GPS		Support GPS\Beidou\GLONASS
Screen	Display	4 Inch TFT Color Screen , Resolution480*800
Voice prompt	Voice	Buzzer
		Support voice prompts, clear and bright sound, adjustable volume Support TTS voice (text to speech)
Upgrade	App&System	By USB Port  By NetWork
physical interface	Power	1 power interface (2-core aviation head) ,DC 8-40V
	Communication interface	1 Lan/RS485/RS232 (4-core aviation head), which can be docked with other devices on the vehicle, and can be optionally converted from 4-core aviation head to M12 Ethernet interface 1 USB A port (USB Host), upgrade and acquisition interface

## 2.4 Product Appearance Rendering



## 2.5 Product Appearance Introduction





SN	Option	Purpose
1	QRScanner	Scan QR Code
2	Screen	Display transaction information
3	Key	Setting params
4	USB Host	Upgrade Application and System
5	RS232	Communicate with other devices
6	Pilot lamp	Operation status indication
7	Power switch	On /OFF
8	Bracket fixing lock	Anti disassembly fixed lock
9	Display digital tube	Display transaction amount or number of



		transactions
10	Horn hole	Voice prompts sound hole
11	Buzzer hole	Buzzer sound hole
12	Card cover	SAM\SIM\TF Card cover to prevent card detachment
13	Power interface	Power input DC 8-40V
14	Lan\RS485\RS232	Communicate with other devices
15	PSAM slot1\2	Install PSAM1\2
16	PSAM slot3\4	Install PSAM3\4
17	SIM slot	Install SIM
18	TF slot	Install TF Card
19	Bracket small board	Install bracket fasteners
20	Anti slip silicone pad for bracket	Anti slip silicone pad for bracket
21	Sliding support	Install bracket sliding accessories
22	Bracket board	Fixed sliding bracket iron plate

## Chapter 3 Equipment installation

### 3.1 Installation method

E60 is mounted POS machine suitable for the public transportation sector, especially the bus sector. It can be installed horizontally and vertically on the handrail pole through the matching bracket.

### 3.2 Terminal Wiring

Among them, the red line is the positive pole line of the power supply, which is connected to the positive pole of the vehicle power supply when in use, and the black line is the negative pole line, which is connected to the negative pole of the vehicle power supply when in use; The 13 interfaces in the appearance introduction diagram of the aviation head connector 2.5 product.



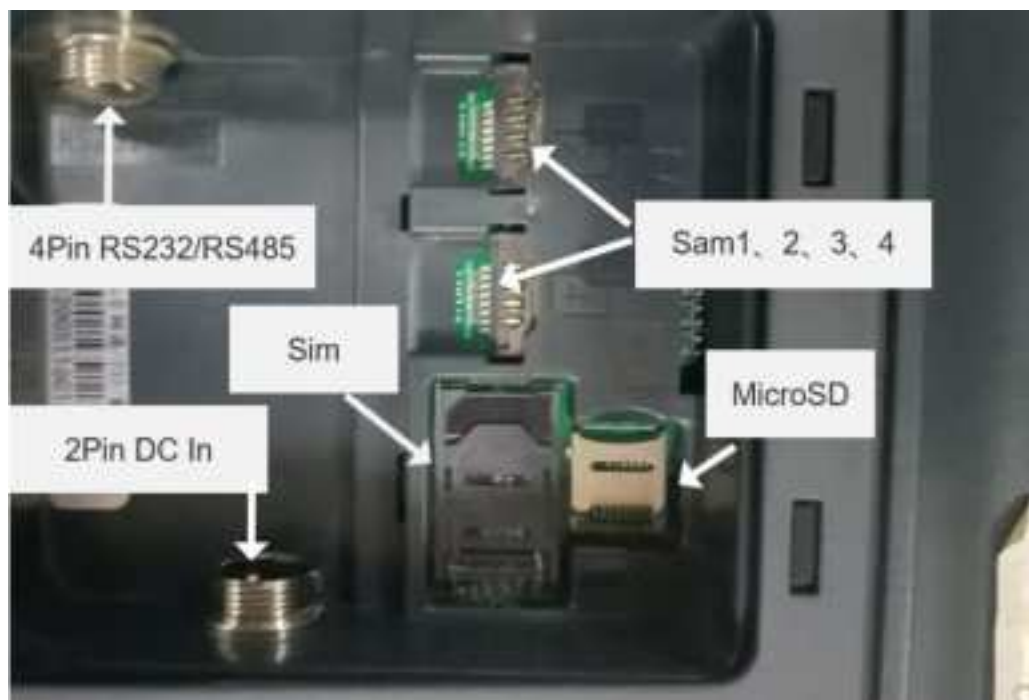
### 3.3 SIM card installation

Purchase SIM/UIM cards from the corresponding network operator based on the wireless network model of the device, and the card must have data services enabled; As shown in the following figure. The machine comes with 2 SIM card interfaces, which are usually installed on the first SIM card interface by default.

remarks:

Industrial grade SIM cards should be selected to prevent deformation caused by high temperatures in summer, which may prevent them from going online;

SIM cards should be selected as large cards, and try not to choose a set of cards that combine large, medium, and small sizes;



### 3.4 Installation of SAM card

According to the actual number of PSAM cards required by the customer, such as the standard PSAM cards from the Ministry of Housing and Urban Rural Development, the standard PSAM cards from the Ministry of Transport, and the PSAM cards issued by the customer themselves, install corresponding card slots.

Attention: There are 2 plug-in double-layer card holders that can accommodate 4 cards. The upper layer has 1/3 card holders and the lower layer has 2/4 card holders. It is necessary to check with the application program which card holder each corresponds to before matching and installing.

## Chapter 4 Basic Operations

### 4.1 Basic operation of power on/off

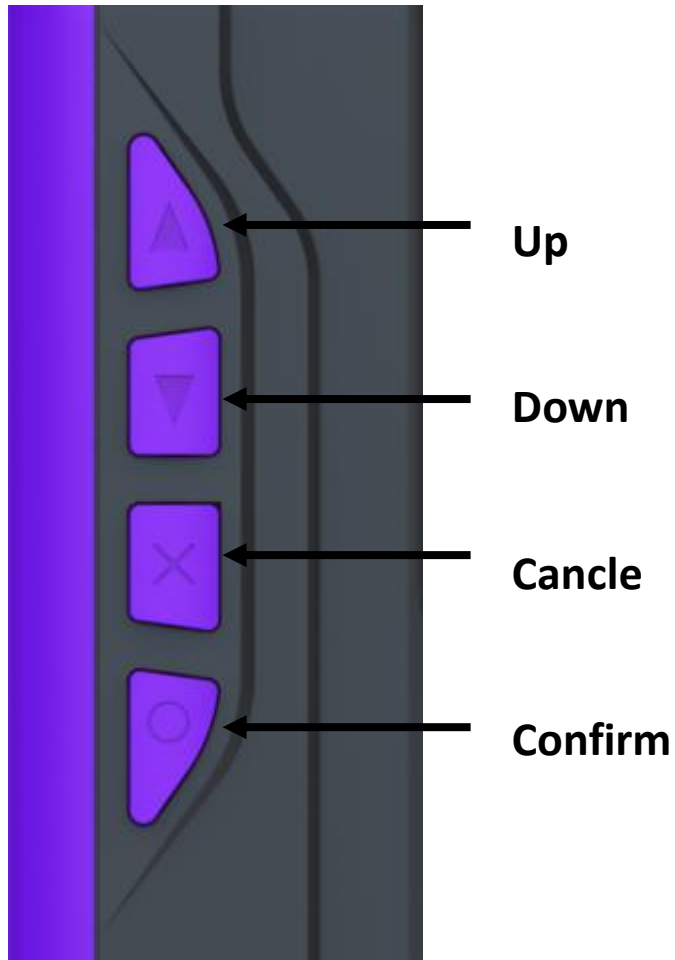
Power on: Ensure that the power cord of the car POS is connected correctly, press the boat shaped switch below the body to turn on/off, and the following display screen will appear before jumping to the actual application program interface.



Shutdown: When the car POS terminal is turned off, the LCD does not display.

### 4.2 Operation method of buttons

The terminal has a total of 4 buttons, and detailed button function descriptions are shown in the figure



Flip up: arrow key, press this key to flip up the displayed menu.

Scroll down: arrow key, press this key to scroll down the displayed menu.

Cancel: Press the cancel button to cancel or return to the previous menu.

Confirm: Confirm button to confirm the current operation.

## 4.3upgrade

The upgrade can be done through a USB flash drive or remote upgrade.

### 4.3.1 Application Upgrade Operation

Application upgrades can be done through various methods such as USB flash drives and remote access.

Upgrade application software on USB flash drive

Upgrade application software on USB flash drive. Create a new folder named E60 in the root directory of the USB drive, put the application software that needs to be upgraded into the folder, then insert the USB drive into the USB-A port of the device, and the installation is complete.

Remote upgrade of application software

Place the software that needs to be upgraded on the platform and follow the platform operation method.

### 4.3.2 System Upgrade Operation

The system program can be upgraded through USB flash drive or remote means.

The steps for upgrading the system using a USB flash drive are as follows:

① Connect the mouse to the USB-A port of the device, move the cursor to the upper left corner of the device interface, scroll down and click the navigation button;

② After pressing the up navigation button, press the ▲ button on the right side to enter the settings interface;

③ Select the 'System Upgrade' option through the button on the right, insert the USB flash drive into the USB-A port, press 'O' to confirm the upgrade, and then enter the system upgrade mode; Remote upgrade system.

Not yet implemented, to be supplemented after implementation.

## Chapter 5 Parts list

List		
Category	Name	Pic(s)
host	E60 Device	1
wire rod	2-core power cord	1
parts	E60bracket	1
parts	Bracket small board	1
parts	Anti slip silicone pad for bracket	2
parts	setscrew	4
parts	Quality certificate	1

## Chapter 6 Troubleshooting

### 6.1 Host does not start

Check the input power supply of the device and ensure that the power cord is wired correctly;

Check if the input voltage of the input device's power supply is higher than 10V;

Check if the connectivity of the power cord is normal;

## 6.2 The host is constantly in a rebooted state

Check if the power supply voltage of the equipment is insufficient and has not reached the starting voltage of the equipment, resulting in the equipment constantly restarting;

Other issues

## 6.3 Not Online

Is the SIM card within the renewal period;

Is the SIM card installed properly;

Is the signal quality of the surrounding cellular network good;

Is the platform configuration correct;

Other issues

### **FCC Caution.**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.