

AP Instructions

1.Electronic Shelf Label (ESL) Base Station Specification

The ESL base station is a crucial component of the ESL system, responsible for data communication with electronic shelf labels to update and synchronize commodity price and other information. ESLs serve as auxiliary tools for the digital transformation of retail terminals. The application of this system can significantly enhance the price update management of cigarettes in retail stores, reduce operating costs, and improve store efficiency. With the expanding influence of new retail, ESLs and related base station equipment may become the supporting devices of mainstream commodity price display tools in the future.

2.Base Station Accessories

Each ESL base station comes with the following basic accessories: 1 base station, 1 Ethernet cable, and several ESLs (including bound and unbound labels).

Component Name	Specification parameters	Quantity
Base station host	Working temperature -20 °C ~60 °C	1 unit
Network cable	Length 3 meters	1 piece
mounting bracket	Wall/ceiling dual-use type, including expansion screw kit	1 set
quick guide	Multi language operation manual	1 copy

3.Base Station Interface Description

- **Power Interface:** DC 5.5×2.1mm round hole
- **Ethernet Interface:** RJ45 interface, 10/100M auto-sensing
- **Status Indicator Light:** Tricolor LED displaying power, network, and communication status (green/yellow/red)

- **Reset Button:** Press and hold for 15 seconds to restore the default IP settings

4.Installation Requirements and Precautions

4.1 Environment Requirements

- **Deployment Height:** Recommended to be 2.5-3 meters above the ground, avoiding metal obstacles.
- **Network Environment:** A fixed IP address LAN access point is required.

4.2 Installation Process

- **Hardware Connection:** Insert the power supply into the base station's DC interface and connect the base station to the router or switch with an Ethernet cable.
- **Power On:** After connecting the power, observe the indicator light: a constantly lit blue light indicates normal communication.
- **Network Configuration:** Log in to the router management interface and assign a static IP to the base station (e.g., 192.168.1.200).
- **Signal Testing:** Check the RSSI value of registered ESLs in the management system (recommended to be above -70dBm).

5.Base Station Basic Parameters

Parameter	Specification
Antenna Channels	4
Antenna Gain	3.54 dBi
RF Chip	TLSR8359
Execution Standard	IEEE802.15.4
RF RX Sensitivity	No less than -95DB

Parameter	Specification
Communication Protocol	Proprietary
Network	>= 100Mb/s
Operating Frequency	2402MHz-2481MHz
Available Frequency Points	80, 4 fixed frequencies per base station, configurable into 20 different frequency base stations
Power Supply	DC12V 1A power adapter
Ethernet Cable Requirement	EIA/TIA 568B
Ethernet Interface	RJ45
Installation Method	Ceiling mount
Recommended Height	3.5m~4.5m above the ground
Installation Requirement	Ensure the AP is in the most open location with no significant obstructions.
MCU	NXP / IMX6DL / 256M NAND FLASH + 256M RAM
Software System	Embedded Linux
Web Configuration	Supported
Hardware	<5W floating power

Parameter	Specification
Hardware Power	<5W floating power
Service Life	>10 years
Number of ESLs Supported	Recommended <1500pcs per base station, no upper limit
Case Material	ABS + PC
Case Dimensions	190.1mm*190.1mm*34mm

6.Installation Steps

6.1 Connect Lines

- Connect one end of the power supply to the base station and the other end to the power strip.
- Connect one end of the Ethernet cable to the base station's network port and the other end to the router.

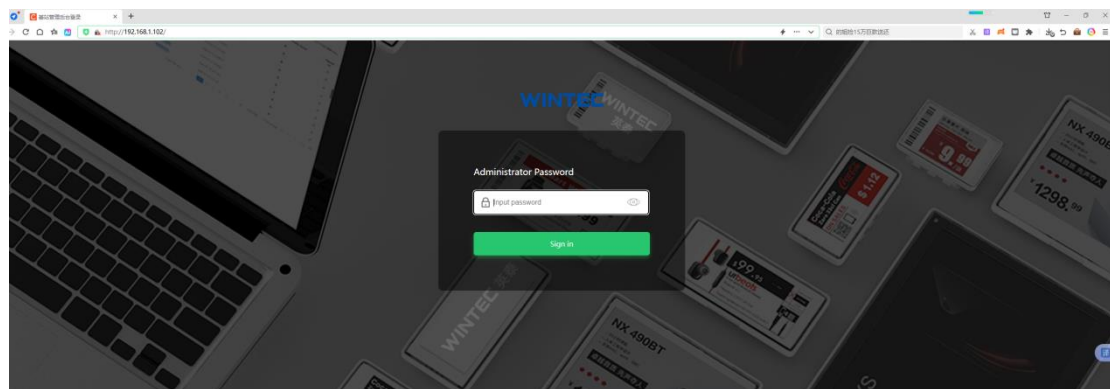
6.2 Power On

- After connecting the lines, turn on the power. If the blue light in the middle of the base station is constantly lit, it indicates that the base station is in normal working condition. Other status indications mean the network is not connected, and no light means there is a power issue.

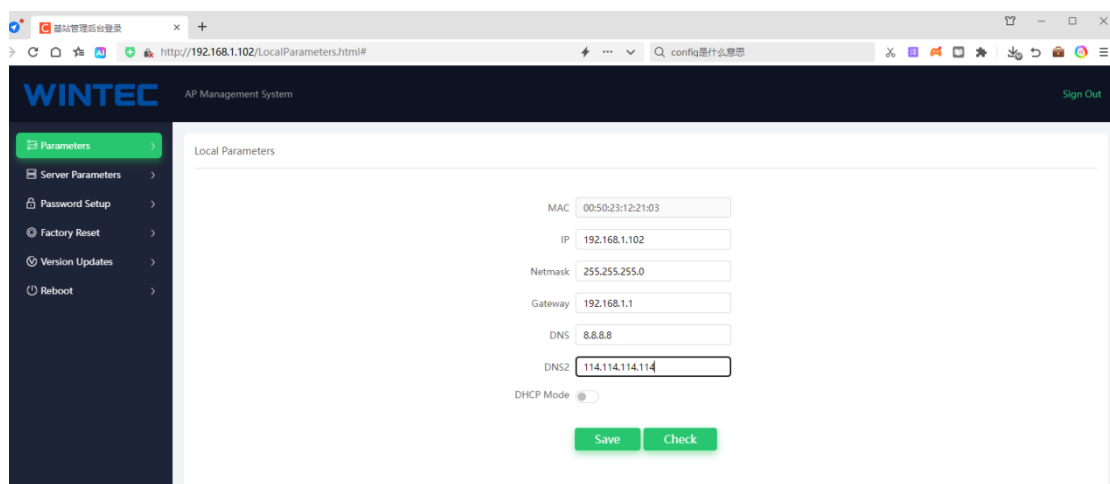
6.3 Login Operation

- Open a browser (such as 360 Browser, Google Chrome, UC Browser, etc.), enter the specified URL (the browser on a dual-screen device can also be used for login), enter the password, and click to log in. Default password: bz12345678

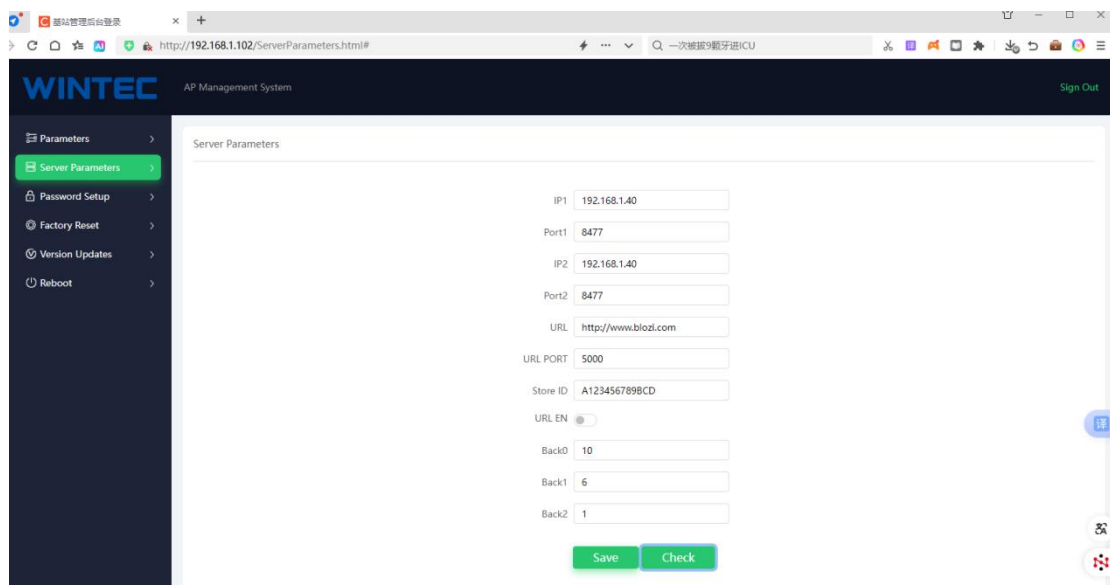
6.3.1. Enter the password to log in to the base station.



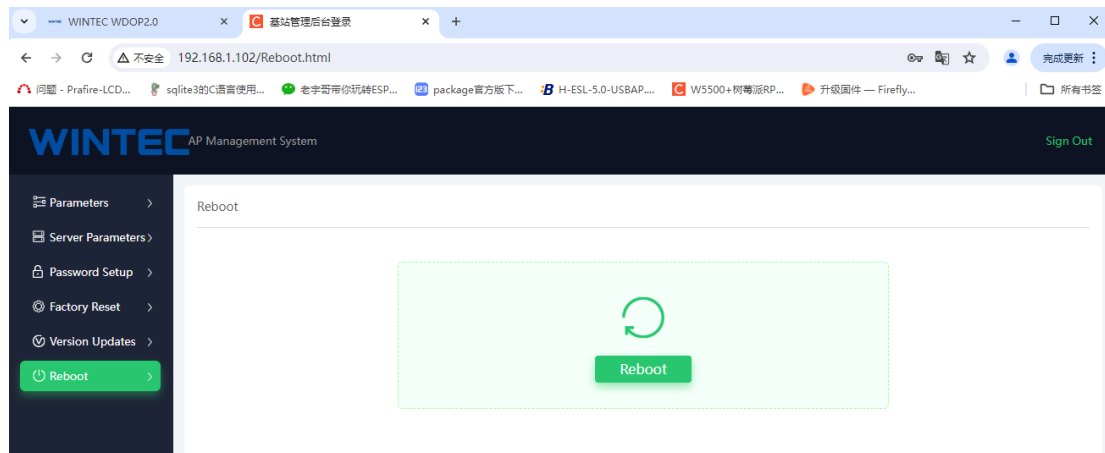
6.3.2. Query the current IP address.



6.3.3. Set the server IP and port connected to the current base station. You can set both primary and backup servers, and under normal circumstances, you can set the IP addresses and ports of both servers to be the same.

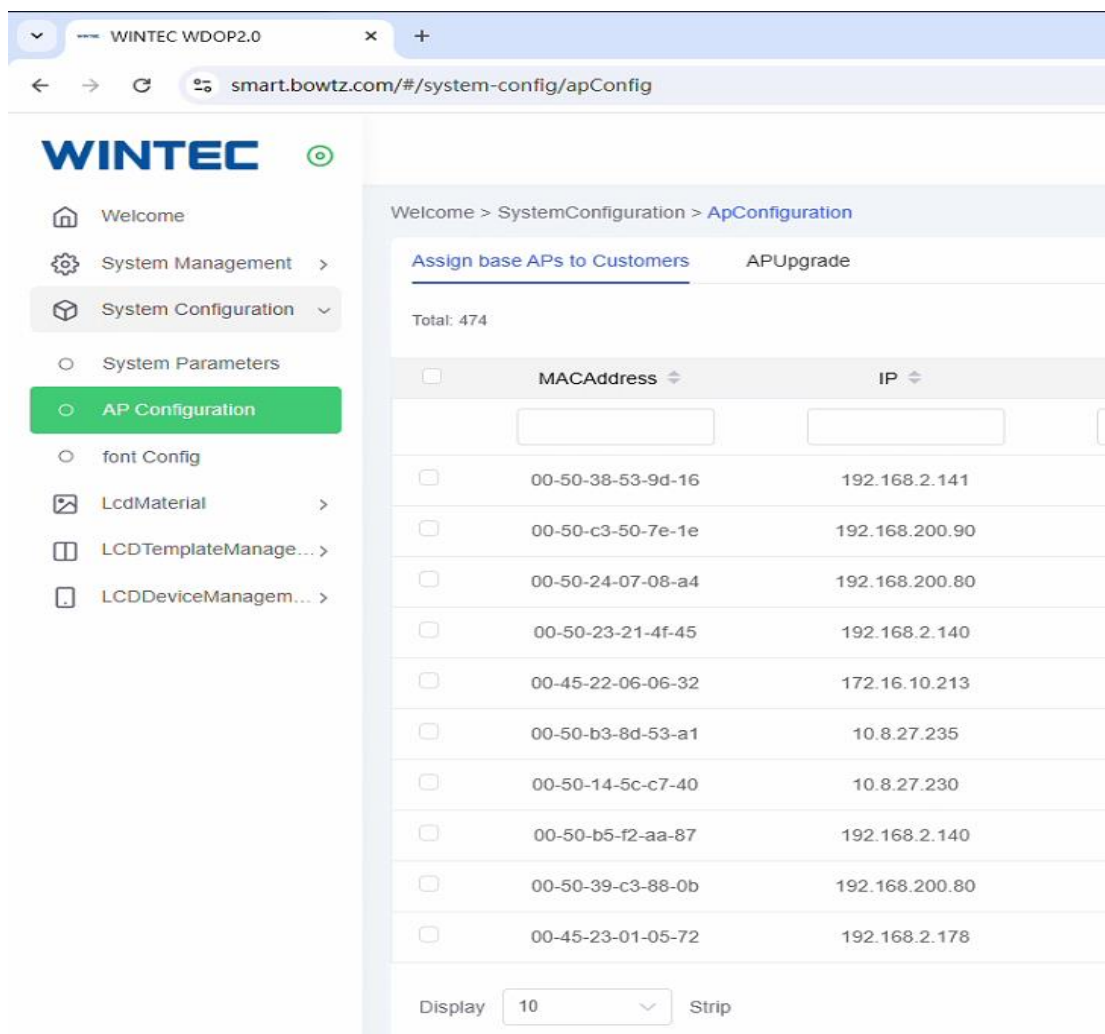


6.3.4.After restarting the base station, it will operate according to the new parameters.

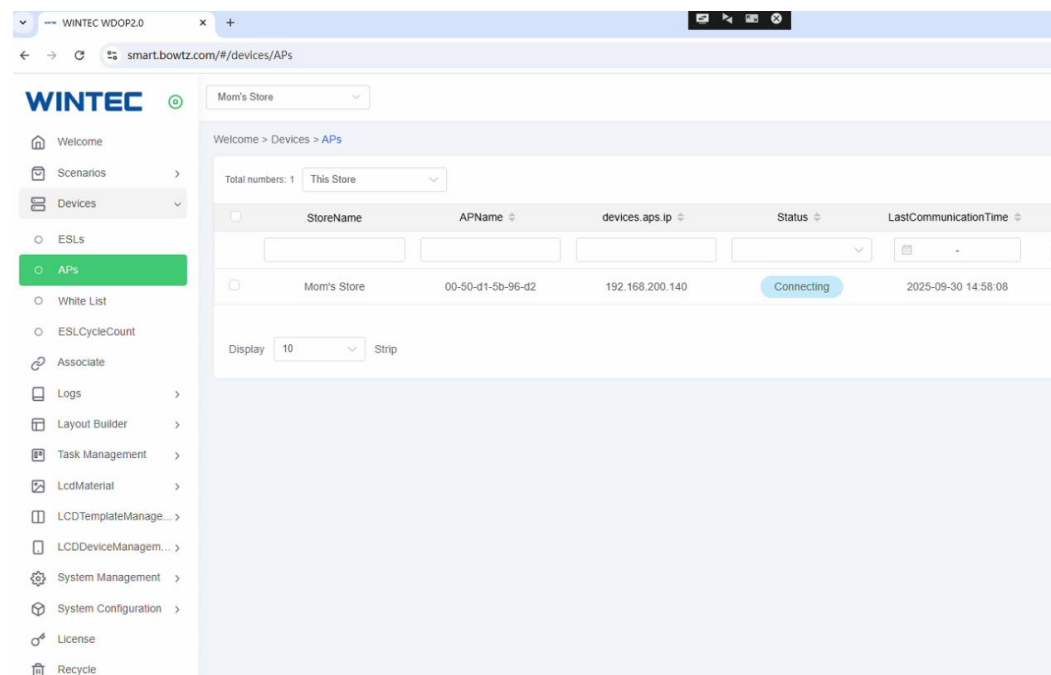


7.Base Station Allocation Method

Select base station configuration, retrieve the corresponding base station according to its MAC address on the nameplate, and allocate it to a specific dealer account.



Log in with the store-level administrator account to allocate base stations.



8.Others

- **Routine Maintenance:** Regularly check the connection lines of the base station to ensure that the Ethernet and power cables are securely connected without looseness or damage.
- **Cleanliness:** Keep the base station clean and avoid dust, debris, and other objects from entering its interior and affecting its normal operation.
- **Precautions:** Do not use the base station in humid, high-temperature, or strong magnetic field environments. When plugging or unplugging Ethernet and power cables, please turn off the base station's power first to avoid damaging the equipment due to current surges. In case of base station malfunctions or abnormalities, immediately stop using it and contact professional technicians for repair.

9.Warning:

● FCC

FCC Statement

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

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.

FCC Radiation Exposure Statement:

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.

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.

● **IC**

ISED RSS Warning/ISED RF Exposure Statement

ISED RSS Warning:

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ISED RF exposure statement:

This equipment complies with ISED 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. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Le rayonnement de la classe B respecte ISED fixa

un environnement non contrôlés. Installation et mise en œuvre de ce matériel devrait avec é changeur distance minimale entre 20 cm ton corps. Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

This radio transmitter [IC: 33997-AP2400S] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Antenna Type: Rod Antenna
Antenna Gain: 3.54 dBi

Company Name: Qingdao Wintec IoT Co., Ltd.
Address: Room 201, Workshop 1, No. 28 Xinye Road, High-tech Zone, Qingdao, Shandong Province, China