



Pocket Spirit Card Reader WE-PK23

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I. Overview

The Pocket Genius Card Reader enables both traditional warehouse operations—such as item registration, inbound/outbound handling, and detailed query functionality—and intelligent warehouse operations—including rapid personnel and item tracking as well as real-time inventory counting—thereby significantly enhancing the efficiency of warehouse management and personnel workforce tracking.

Material and personnel data are stored directly within the Pocket 精灵 card reader; neither the computer software nor the mobile app stores this data, ensuring robust data security. For multiple users, no additional synchronization is required. A single card reader can manage up to 1,000 types of records, including at least one year's worth of detailed inbound/outbound inventory documentation and personnel assignment relationships – all data is readily accessible at a glance.

By using computer management software or the Pocket Assistant mobile app, you can simultaneously call up up to 80 electronic tags, enabling quick identification of items and personnel through audible and visual alerts, thereby enhancing the efficiency of locating items and personnel. Real-time inventory counting allows for the timely detection of lost items in the warehouse or missing personnel on-site, strengthening risk prevention measures in warehouse management and simplifying personnel management.

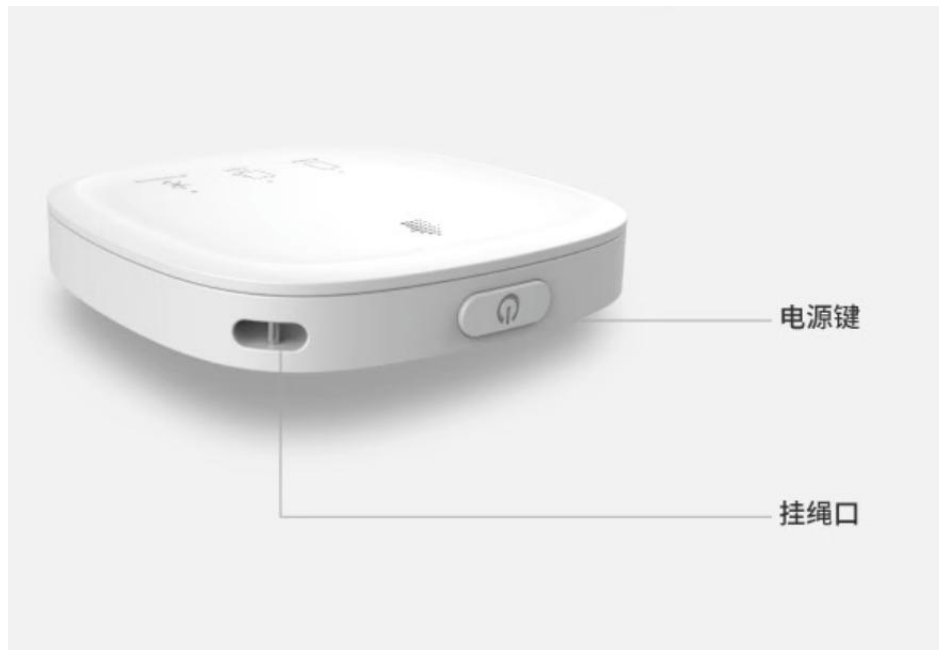
The card reader can be connected either via a USB cable on a computer or via Bluetooth on a mobile device. It allows users to perform routine management tasks on their computers while, when needed, using their mobile phones to locate goods or personnel – combining practicality with convenience and serving as an effective auxiliary tool for enhancing warehouse management and personnel management capabilities.

II. Main Features

- ◆ A single card reader can support the management of up to 1,000 records.
- ◆ Up to 32 categories can be defined; a single material can belong to multiple categories.
- ◆ Enables the storage of inbound/outbound inventory and item operation logs for at least one year.
- ◆ Supports scanning 1D and 2D barcodes using barcode scanners for item lookup, outbound, and inbound operations.
- ◆ Can simultaneously alert up to 80 tags (with audible and visual alerts); range up to 50 meters.
- ◆ Standardly equipped with a 750 mAh rechargeable lithium-ion battery, providing over 15 hours of continuous operation.
- ◆ Bluetooth wireless transmission power: 8 dBm; maximum transmission range: up to 30 meters.
- ◆ ABS engineering plastic casing – compact dimensions of 97 mm × 50 mm × 19 mm – ideal for easy portability.
- ◆ Free computer software for daily tag management tasks; a mobile app for locating items or people – convenient and efficient.

III. Interface Specifications





V. Technical Specifications

项目	规格	参数
无线读卡	载波频率	2.4GHz
	调制方式	QPSK (四相相移键控)
	控制协议	IEEE 802.15.4
	接收灵敏度	-118dBm
蓝牙传输	载波频率	2.4GHz
	调制方式	GFSK
	控制协议	蓝牙串口协议 (SPP)
	接收灵敏度	-97dBm
电源	电池电量	750mAh@3.7V
	工作电流	不超过50mA
外观结构	尺寸	69.6x69.6x13mm
	重量	70g
工作环境	温度	-40°C~ 85°C
	湿度	小于95%(无凝结)
	防护等级	IP43

VI. Pocket Spirit Computer Management Software

Software Function – Quick Search Index

- [1. Connect the computer to the Pocket Spirit card reader.](#)
- [2. Run the computer software to log in to the Pocket Spirit Card Reader.](#)
- [3. Check the reader's operational status information](#)
- [4. Personnel Classification Management](#)
- [5. Personnel – Only Attribute Settings](#)
- [6. Personnel Management](#)
- [7. Adding, removing, and other personnel operations](#)
- [8. Call the designated person \(label\)](#)
- [9. Pocket Spirit Data Backup and Restoration](#)
- [10. Clear Pocket Spirit data](#)
- [11. Configure Bluetooth connection parameters](#)

1. Connect the computer to the Pocket Spirit card reader.

Download the "USB Driver" and "Pocket 精灵 Management Software Installer" to your local computer.

Run the "USB Driver" to install the USB driver.

Connect the Pocket Spirit card reader to your computer using a USB cable. You can open Device Manager to check whether the device has been successfully connected.

In the "Device Manager" tool, locate the "USB-SERIAL CH340" device under the "Ports" category and note down its COM port number.



2. Run the computer software to log in to the Pocket Spirit Card Reader.

To log in to the Pocket Spirit Card Reader using computer software, you need to select a serial port – this is the serial port that is automatically detected when the computer is connected to the Pocket Spirit Card Reader via a USB cable.

When logging in, you must enter your username. This username will be recorded in the inventory entry/exit records when you perform inventory inbound or outbound operations.



3. Check the reader's operational status information

After launching the computer software, the upper-right corner displays relevant information such as the reader's runtime and remaining battery level.

序号	物品名称	规格型号	当前库存	单位	物品条码	电子标签ID	标签电量
1	白猫洗洁精		0	件		2134326	未找到
2	雕牌洗衣粉		0	件		2070921	未找到
3	格兰仕微波炉	LW-3357	0	件	335689	1931539	70%
4	海尔电冰箱	DP-5168	312	件	1234567	2185613	未找到
5	脸盆	30CM蓝色	0	件		1933571	未找到
6	飘柔洗发水		0	件		2135890	未找到
7	小天鹅洗衣机	XTL-2577	0	件	987633	2270606	未找到

4. Item Classification Management

Pocket Spirit allows you to create up to 32 item categories; each item can be assigned to one or more of these categories.

On the [Item Inventory] page, right-click on "All" in the "Category Tree" on the left to add a new category or adjust the category order.

序号	物品名称	规格型号	当前库存
1	白猫洗洁精		0
2	雕牌洗衣粉		0
3	格兰仕微波炉	LW-3357	0
4	海尔电冰箱	DP-5168	312
5	脸盆	30CM蓝色	0
6	飘柔洗发水		0
7	小天鹅洗衣机	XTL-2577	0

On the [Item Inventory] page, right-click on a previously created category within the left-side sidebar tree to modify or delete that category.



5. Custom Item Attributes Settings

Each item contains basic attribute information such as "Name", "Label ID", "Unit", "Model/Specification", "Item Barcode", and "Remarks". Additionally, users can configure up to five custom attribute fields according to their needs to facilitate management – for example, "Weight", "Dimensions", or "Procurement Price".

Go to the [Settings] page, then tap the "Item Customization" feature to configure custom item attributes.



6. Item Management

On the [Item Inventory] page, you can create, delete, modify, or view information for various items.



The item list allows you to check whether an electronic tag can be read and display its remaining battery level, facilitating the routine maintenance of these tags.

Click the "Gear Icon" on the right to configure the items to be displayed in the list.



7. Item receipt and issuance, and other operations

On the [Item Inventory] page, you can perform 入库 (Inventory In), 出库 (Inventory Out) and other log operations. The "入库" operation increases the inventory quantity of the item, while the "出库" operation decreases the inventory quantity of the item; the "Other Logs" operation is used to

record routine maintenance activities that do not involve inventory quantity changes—for example, recording when an item was borrowed from the warehouse by a specific user today.



Go to the [Item Log] page, select a time period, and click the "Search" button to view all inbound, outbound, and other log entries recorded during that period.



8. Call out the specified item (label)

On the [Call Search] page, you can batch-select specific items (up to 80 tags are supported per call); by calling these tags, you can quickly locate them using the audio-visual alerts sent by the tags.

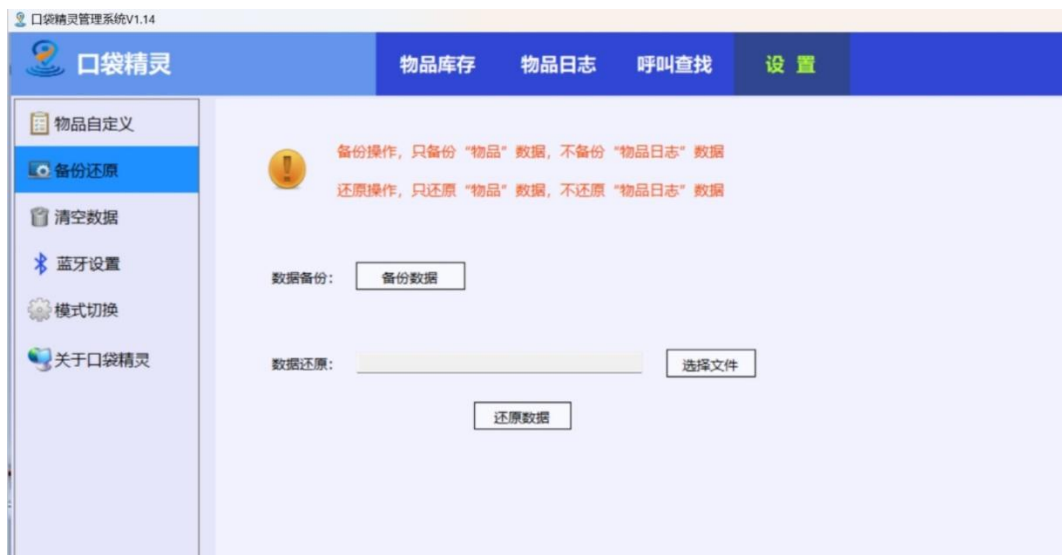


After adding the item you wish to locate, you can check whether the corresponding tag exists and view its "Signal Value/Reference Distance" to determine if the tag is nearby. If the item still cannot be found directly, you can call out to the tag to quickly locate it using its audible and visual alert.

If an item is assigned the "Barcode" attribute, it can be quickly added by scanning the barcode with a barcode scanner, which significantly improves the efficiency of locating items.

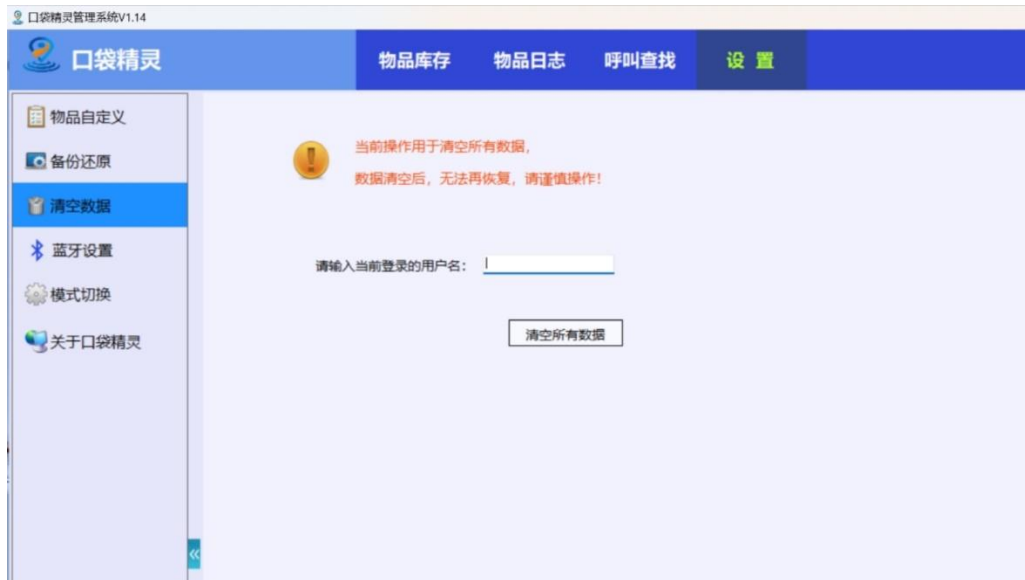
9. Pocket Spirit Data Backup and Restoration

To ensure the security of Pocket 精灵 data, it is recommended to back up your Pocket 精灵 data periodically. On the [Settings] page, you can back up your Pocket 精灵 data to your local computer.



10. Clear Pocket Spirit data

For warehouses that are determined to be unused, their data can be cleared. On the [Settings] page, you can perform the operation to clear Pocket 精灵 data. For security reasons, when clearing warehouse data, you must confirm both the user's login name and the name of the current warehouse.



11. Configure Bluetooth connection parameters

Use your smartphone to install the [Pocket 精灵] app; this app allows you to connect to the Pocket 精灵 card reader and perform mobile item search directly on your phone.

To ensure the security of your Bluetooth connection, you can modify the reader's Bluetooth broadcast name and pairing PIN code.



When multiple Pocket Spirit card readers are used simultaneously in the same warehouse, it is necessary to assign different Bluetooth broadcast names to each reader to prevent Bluetooth connection errors.

12. Mode Switching

Pocket Spirit supports two different application modes: Personnel Management and Item Management. By selecting the Client Mode, the system will automatically switch between the primary category (Personnel or Items) or update the corresponding item name.



13. About Pocket Spirit

The Pocket Spirit selection section primarily provides information about the device's version number, device ID, and the version number of the installed software on the device.



VII. Mobile Inventory Tracking App

Run the [Pocket Spirit] app; using your smartphone, you can check whether warehouse items are online, view detailed information such as item name, model, barcode, inventory quantity, and label battery level, or call out a specific label to quickly locate the item using audible and visual alerts.

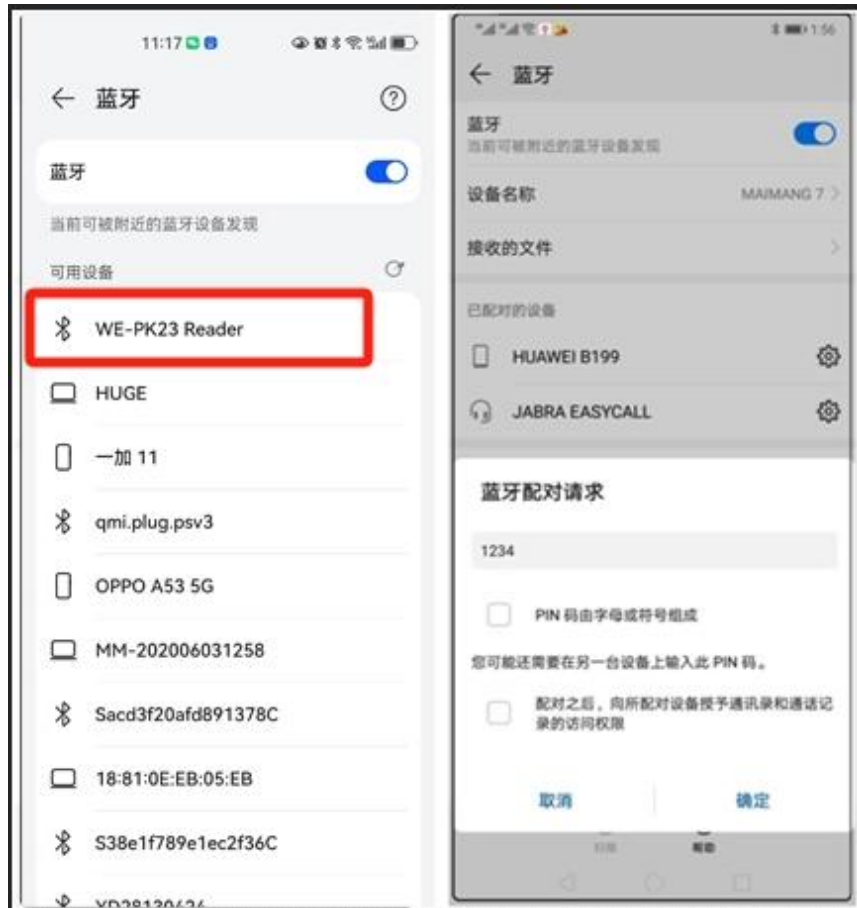
1. Pairing your smartphone with the Pocket Spirit Card Reader via Bluetooth

Use your smartphone's Bluetooth to connect to a card reader device, then launch the [Pocket Genius] app to read item information from the warehouse or locate/locate electronic tags. This allows you to search for goods on the go – fast and convenient.

Open the Pocket 精灵 card reader and check whether the "Power" indicator light and the Bluetooth indicator light (Bluetooth broadcast) are flashing.



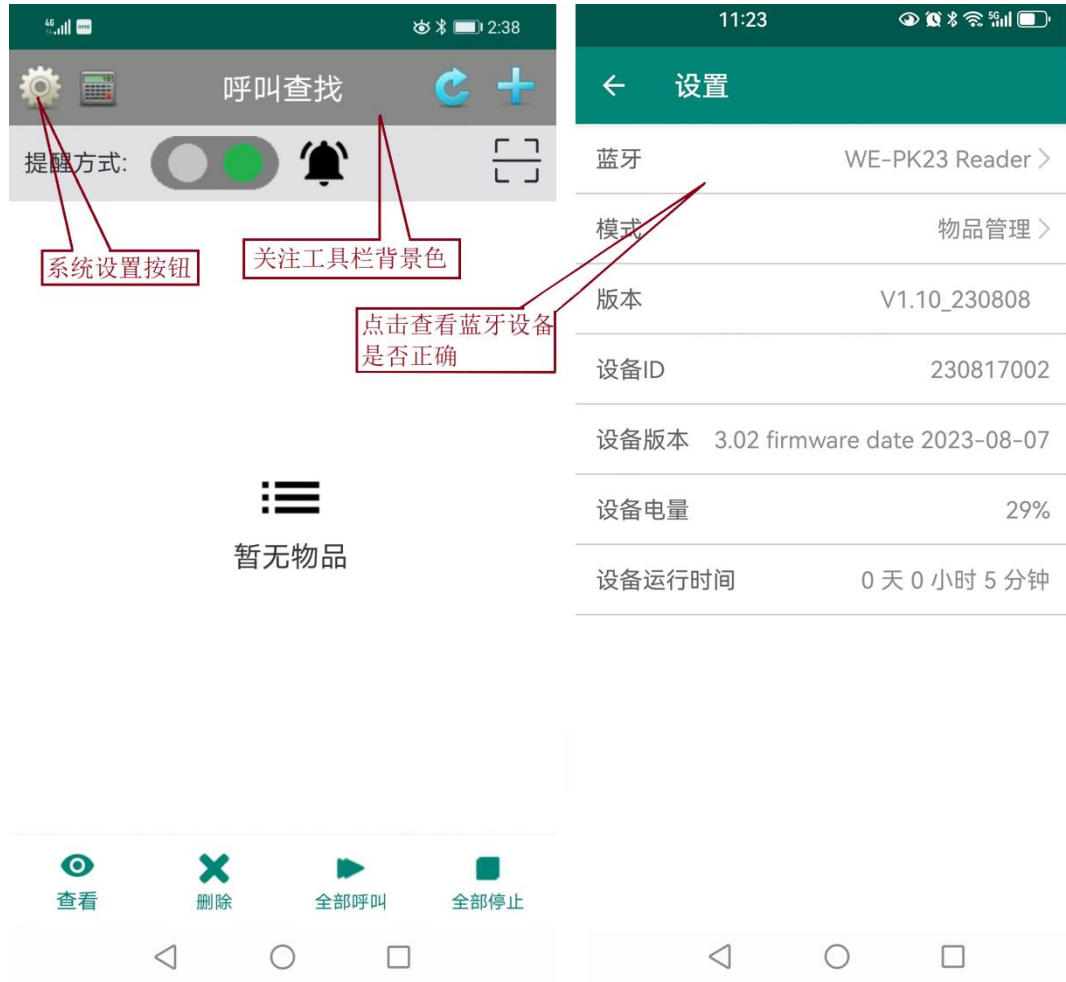
Enable Bluetooth on your smartphone, search for Bluetooth devices, and locate the "WE-PK23 Reader" (default) device. Then proceed with pairing. During pairing, enter the PIN code "1234" (default).



Once the Bluetooth pairing is complete, you can open the [Pocket 精灵] app to locate items. You can search for up to 80 items simultaneously; the app displays the distance between each item (label) and your current location, and you can call out a label to quickly locate it using audible and visual alerts.

2. Connect the Pocket Spirit APP to a card reader

When the Pocket Spirit APP is launched for the first time, if no card reader has been selected for connection, the app will be unable to establish a connection with the card reader; in this case, the toolbar background will appear gray (it will change to green once the card reader is successfully connected).



Tap the "Settings" button (gear icon) to open the "Settings" page. On this page, tap the "Bluetooth" menu and select the card reader device that has already been paired with Bluetooth. Once selected, close the settings page; the background color of the toolbar will then change to green, indicating that the PocketMaster app has successfully connected to the card reader.

After connecting the app to the card reader, tap on the "Settings" page to view system information such as the app version number, the Pocket Spirit Card Reader's device ID and version number, the card reader's battery level, and the remaining operating time.

After connecting the app to the card reader, the app will automatically download the warehouse item data and display the download progress percentage; once the progress reaches 100%, you can proceed with the search operation.

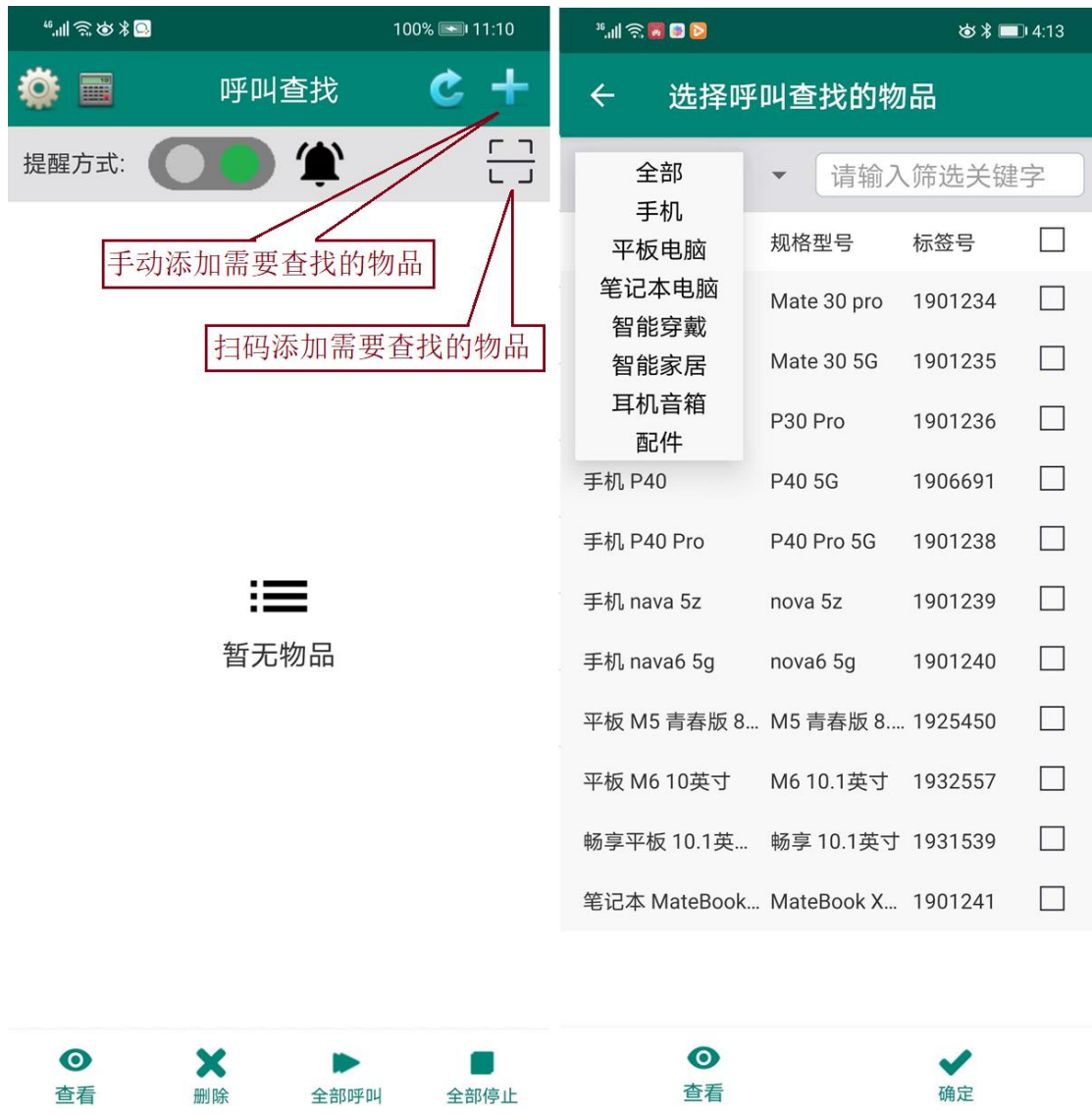


If the data within the reader has been modified (for example, if item data has been updated using computer software), the app will need to refresh its data; simply click the Data Update button again to do so.



3. Find Item (Find Mode)

Click the plus sign in the top-right corner to manually add the item you want to search for from the item list. If the item has a barcode (but not a label ID), you can automatically add the item you want to search for by scanning its barcode.



When selecting items, you can check whether they are stored in the warehouse and their distance from the card reader. Tap "Call" – the corresponding label will then light up and emit a sound.



In the list, yellow items represent items not stored in the warehouse (no label detected), while white items represent items stored in the warehouse (distance display is shown). For any item, you can click "View" to display detailed information about that item, including its current inventory quantity, the remaining battery level of its label, and more.

You can select a specific item from the item list to call it, or click the "Call All" button at the bottom to call all tags. When calling a tag, tap the traffic light button to choose its flashing mode (red light flashing, green light flashing, or alternating red and green light flashing); tap the buzzer button to select the sound mode (buzzer on or buzzer off).

5. Inventory Take (Inventory Mode)



Click the "Inventory Count" button (Calculator icon) on the toolbar to access the Inventory Count page.

For the inventory function, first select the category that needs to be inventoried. For example, if you want to check whether the equipment inside a fire truck is complete, select the following:

← 选择要盘点的物品类别

☐ 灭火装备

☒ 破拆装备

☐ 防护装备

After displaying the items to be inventoried, click the "Start" button to begin the inventory process. Once the inventory is complete, you can see which items could not be found and which items have low battery levels on their electronic tags.



In "Inventory Mode," tap the "Flashlight" icon on the toolbar to return to "Find Mode."



8. Companion nameplate labels and audio-visual electronic tags

1) WE-T32K Personnel Statistics Electronic Nameplate Tag



A 300 mAh lithium-ion battery can operate at a frequency of once every 5 seconds for a period of 5 years.

2) WE-T52 Audio-Visual Alert Electronic Tag



750 mAh rechargeable lithium-ion battery – for normal use, recharge once per year (can be fully charged in 30 minutes using a power bank).

3) WE-T56 Audio-Visual Alert Electronic Tag



A CR2032 button battery (280 mAh, replaceable); replace the battery every six months under normal usage conditions.

4) WE-T51 Audio-Visual Alert Electronic Tag

One ER14505 rechargeable battery (replaceable); typically lasts for 3 years of use and features excellent waterproofing. The device includes a "Find/Confirm" button; once located, press this button to automatically stop the call.

5) WE-T58 Audio-Visual Alert Electronic Tag

A single AA alkaline battery can power the device for up to 96 million calls; the battery can be replaced by the user, and the device typically lasts three years of use. It emits red, green, or yellow lights and a warning sound at a volume of up to 110 decibels. The device features a "Confirm Location" button – once the location is detected, simply press this button to automatically terminate the call.