

Smart **Trolley-S600**

Product Manual

SuperHii Technology



Contact Us

Address: 1804-1904, Block A, National Digital Publishing Base, Yanta District, Xi'an City, Shaanxi Province, China

Service Hotline : 400-877-6002

Email : services@superhii.com

Website : www.superhii.com

Version Description:

Version	Revision	Reviser	Date
V2.00			30/12/2021

Table of Contents

1.	Precautions for Usage.....	5
2.	Product Features	5
	2.1 Featured Elements	5
	2.2 Schematic Diagram of Plug-in Magnetic Alternating Charging (Patented	6
3.	Smart Trolley Component Diagram and Parameters.....	7
	3.1 Trolley Body Component Diagram	7
	3.2 Trolley Parameter Table.....	7
	3.3 Smart Terminal Parameter Table	8
	3.4 Parameter Table for Wall-mounted Charging Device.....	8
4.	Trolley Assembly.....	9
	4.1 Component Diagram.....	9
	4.2 Diagram for Connecting Smart Terminal With Trolley Body	9
	4.3 Installation Steps.....	9
	4.4 List of Commonly Used Spare Parts and Tools.....	10
5.	Precautions for Installing Wall-mounted Charging Device.....	10
	5.1 Component Diagram.....	10
	5.2 Precautions for Installation and Usage	11
	5.3 Prohibitive Scenarios for Usage	12
6.	Instructions for Trolley Usage	12
	6.1 Power On/Off	12
	6.2 Network Requirement and Connection Setup	12
	6.3 Software Configuration	13
	6.4 Charging	21
7.	Daily Management	22
	7.1 Daily Charging	22
	7.2 Startup Check	22
	7.3 Trolley Circulation.....	22
8.	Maintenance Method	22
	8.1 Maintenance Period	22
	8.2 Trolley Cleaning	22
	8.3 Inspection.....	23
9.	Common Fault Analysis and Troubleshooting	25
	9.1 Charging Problem.....	25
	9.2 Smart Terminal Display Problem	25
	9.3 Scanning Problem.....	26
	9.4 Abnormality of Weight Sensor (Zero Weight Setting for Unloaded Trolley).....	26
10.	Warranty Policy	30
11.	Non-warranty Clause.....	30

1. Precautions for Usage

- 1) **Internet:** The trolley shall be used in good network conditions.

If the trolley connects with public network in a store, a network segment shall be used specifically for the trolley with password.

- 2) **Deactivation Maintenance:** If the trolley is going out of service, the smart terminal shall power off after fully charging the trolley; when the trolley is going to be activated, turn on the power and then charge the trolley.

If the trolley is lying idle with power on for a long time, the battery will discharge low current continuously. Hence, the trolley shall be powered on and charged every 30 to 45 days, otherwise the risk of dead battery may damage the battery, cause abnormal charging or other faults.

Note: The trolley cannot effectively charge (with the indicator light off) with power off, so it should be charged with power on.

- 3) **Parameter Setup :** The administrator verification interface will pop up after clicking on the upper left corner for six times on the idle screen. Then enter the password chaohichaohi and the user can set up functions such as network, changing store information and setting sensor to zero on the administrator interface.

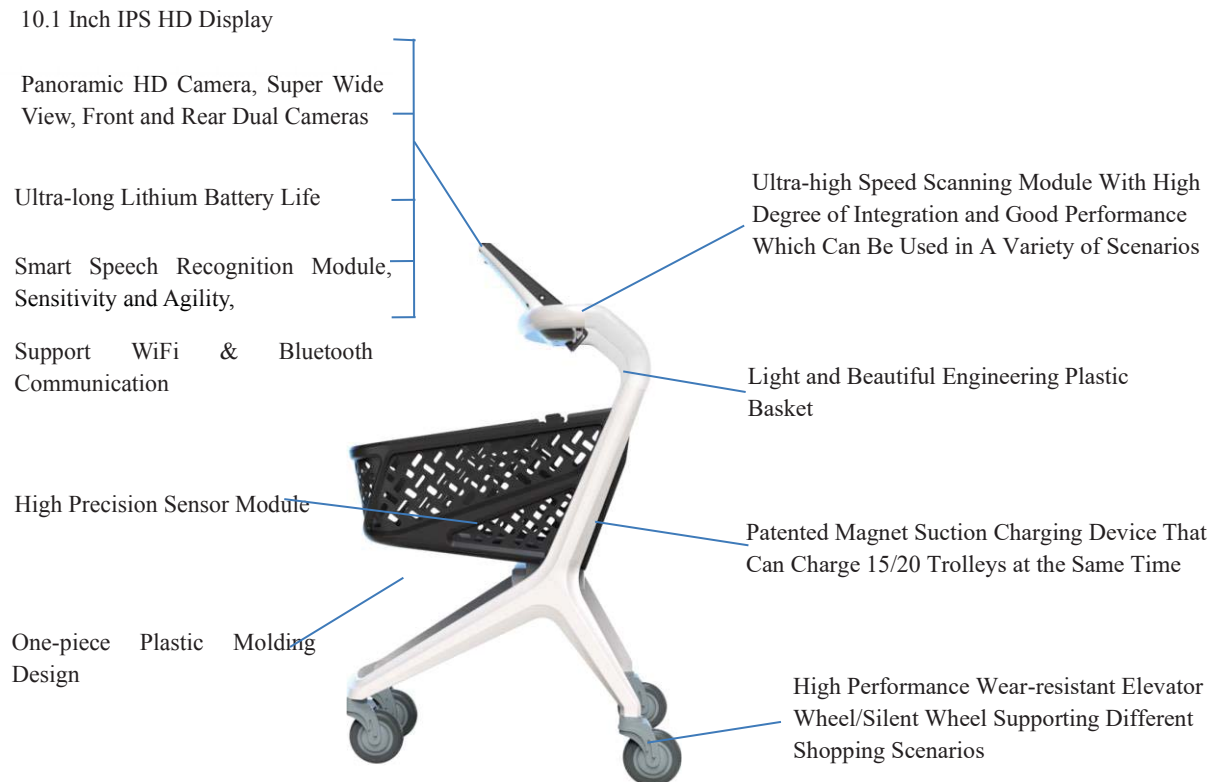
- 4) **Troubleshooting Failure :** If any fault cannot be fixed, contact the after-sale service personnel of SuperHii Technology please.

The user shall report the breakdown time, trolley serial number and breakdown description (picture, video and text etc.) so that the after-sale service personnel of SuperHii Technology can rapidly identify and fix problems.

Due to constant improvement of our product performance, there may be some subtle discrepancy between the *Product Manual* and the in-kind product you bought including function, application, outlook, color and the like. Please refer to the product in kind. You may contact us by hotline and get the latest manual.

2. Product Features

2.1 Featured Elements

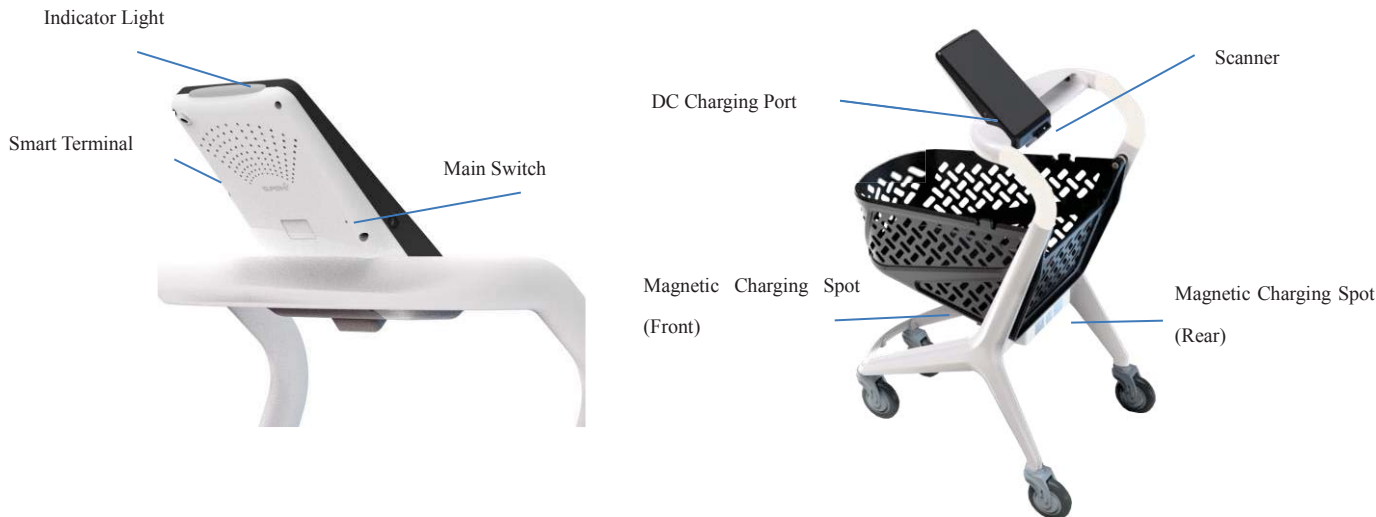


2.2 Schematic Diagram of Plug-in Magnetic Alternating Charging (Patented)



3. Smart Trolley Component Diagram and Parameters

3.1 Trolley Body Component Diagram



3.2 Trolley Parameter Table

Basic Information	Model	Trolley-S600	Smart Terminal Model	LST-S02W
	Overall Size	764*560*1184mm	Display	Vertical
	Basket Size	640*430*347m(MAX)	Wheel	4 Inch Elevator Wheel /Silent Wheel
	Basket Material	Engineering Plastic	Overall Weight	Around 15kg
	Frame Material	Engineering Plastic	Charging Port	DC : 2.1x5.5mm 36V, >1.5A Magnetic Suction Charging---High Power (Connecting With Many Trolleys)
	Indicator Light (Not Shopping)	Charging: Long Red Light Fully Charged: Long Green Light Not Charging: Light Off	Indicator Light (Subject to Software Version)	Normal Login: Long Green Light Not Login (Ordinary Shopping Trolley): Light Off Normal Checkout: Green Light Flicker (Interval for One Second) Abnormal Checkout: Red Light Flicker (Interval for One Second) Shopper Belongings Left in the Trolley: Yellow Light Flicker (Interval for One Second)

3.3 Smart Terminal Parameter Table

Hardware Configuration	Description
PCB Board	Highly Integrated Circuit Board
Processor	ARM Cortex-A53 (Qualcomm 64, 8 Core, 1.8+GHz)
Memory	4GB RAM+64GB ROM (optional)
	2GB RAM+16GB ROM
OS	Android 9.0
Touch Screen	Display: 10.1inch IPS HD 1280*800 Touch Screen: 5 Points
Camera	2Million Front---Login Recognition Verification
	5Million Rear--- Product Information Monitoring
	5Million Side---Scenario Information Monitoring (Optional)
Communication	WiFi 2.4G&5G Dual Frequency , IEEE802.11a/b/g/n
	BT4.2 (BR/EDR+BLE)
Scanner	High Sensitivity Scanning Module
Facial Recognition Payment	Supporting WeChat/Alipay Facial Recognition Payment (Optional)
USB Port	Double-way USB2.0 Port That Can Connect With Scanning Gun or Charge Mobile Phone

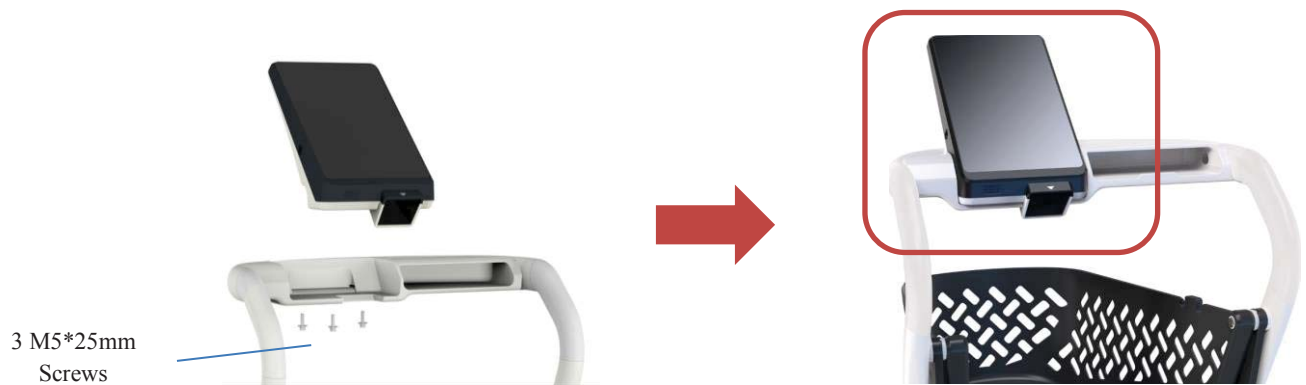
3.4 Parameter Table for Wall-mounted Charging Device

Product Name	Magnetic Suction Charging Device (Plug-in Charging)	Model	C-750T (Wall-mounted)
			C-750Z (Vertical)
AC Input	100-240V~ ;4.7A Max. ;50/60Hz	DC Output	36V ; 20.9A
	100-120V~ ;7.5A Max. ;50/60Hz		36V ; 14.6A
Charging Time	Fully Charged for around 6 hours, usually 4 to 5 hours	Charging Method	One Charging Unit of 15/20 Trolleys as Standard with One Magnetic Suction Charging Device; Supporting Charging with Power On;
Footprint	20 Trolleys Taking Up 2.5 □ Around (4.18m x 0.8 m)	Charging Indicator	Charging Status Indicated by Smart Terminal Indicator Light. Red Light for Charging; Green Light for Fully Charged.

Electric Protection	Protection Against Overcurrent, Overvoltage Charging, Overload, Short Circuit, Under-voltage Discharge, and Protection for Charging and Discharging Current and Voltage and Temperature Control	Working Environment	Temperature -20℃~70℃; Humidity 20%~90%RH
		Storage Environment	Temperature-40℃~85℃; Humidity 10%~95%RH

4. Trolley Assembly

4.1 Component Diagram



4.2 Diagram for Connecting Smart Terminal With Trolley Body



Schematic Diagram for Power Cables
Connected



Schematic Diagram for Weight
Sensor Connected

4.3 Installation Steps

- 1) The serial number is printed on RFID label inside the front end of the trolley body. **The serial number on the back side of the smart terminal to be installed on the trolley shall be consistent with the serial number of the trolley body.**
- 2) Connect the connecting line according to 4.2 diagram and make sure the connector is

fastened tightly to avoid damage lines.

- 3) Fasten the smart terminal on the trolley body with 3 “M5*25 hexagon socket head cap screws with flat spring washer” as shown in the diagram 4.1 and then check whether there is gap on the rear end. If there is a big gap, adjust the installation to avoid pressing lines.

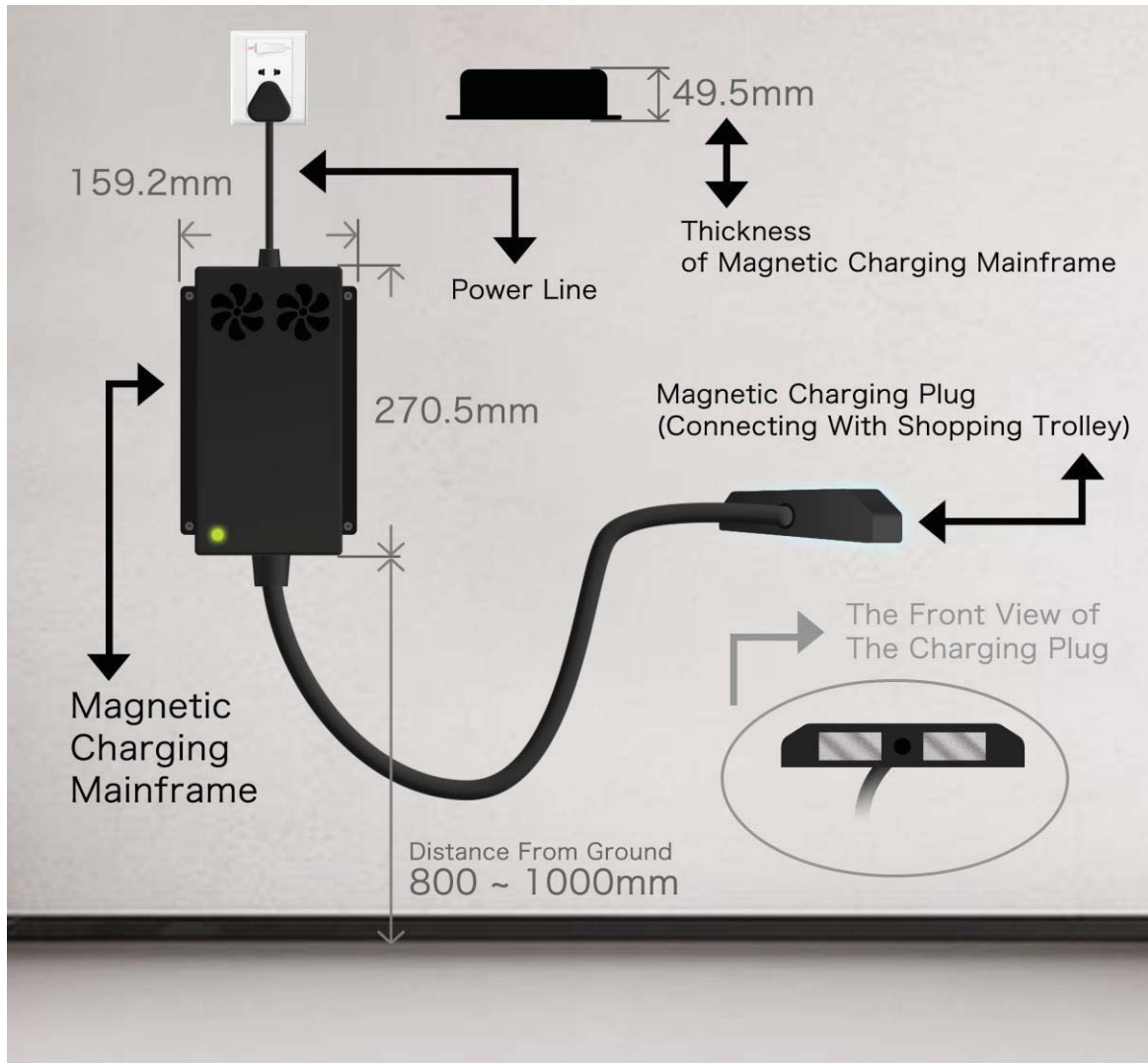
Due to the matched serial number of smart terminal and weight sensor of the trolley, the smart terminal cannot be randomly replaced after installation.

4.4 List of Commonly Used Spare Parts and Tools

No.	Part Name	Quantity	Function
1	Fine Thimble	1pcs	Smart Terminal Power On/Off
2	4mm Allen Wrench	1pcs	Fastening Smart Terminal
3	3 Screws Fastening Smart Terminal	1pcs	Fastening Smart Terminal On Trolley Body (Spare Part)
4	Wrench for Installing Wheel	1pcs	Installing Wheel (Providing in Bulk Order)
5	6mm Allen Wrench	1pcs	Fastening Basket and Sensor in Routine Maintenance (Providing in Bulk Order)

5. Precautions for Installing Wall-mounted Charging Device

5.1 Component Diagram



5.2 Precautions for Installation and Usage

- 1) Due to high voltage, any abnormality of the charging device shall be fixed by professionals instead of users opening outer cover of the device on their own. The device shall be mounted on a wall or upright rod rather than dragging it on ground (which can cause safety problems and reduction of usage life).
- 2) In installation, the device shall be fastened on a wall **with the shell of switching power module grounded**. The distance from the ground is 80-100cm.
- 3) Keep the device away from any device of high frequency interference and surge, and parts and devices as vibration source, such as contactor.
- 4) The charging device shall not be put in a hot environment, under direct sunlight or close to fire, or in a place where some liquid, foreign object, corrosive gas may go inside the device.
- 5) The wire connecting the AC power shall not be plugged in/out frequently (more than once per month), otherwise the usage life will be reduced, and safety risk occurs.

- 6) In installation, make sure any scrap iron or other metal object will not go inside the device to avoid short circuit and electric shock.
- 7) The power socket on a wall for the charging device shall be 1000W or more. To avoid potential safety hazard due to multiple plug-ins/outs, a socket with switch button on it is recommended for daily maintenance and operation (the above diagram only for reference).

5.3 Prohibitive Scenarios for Usage

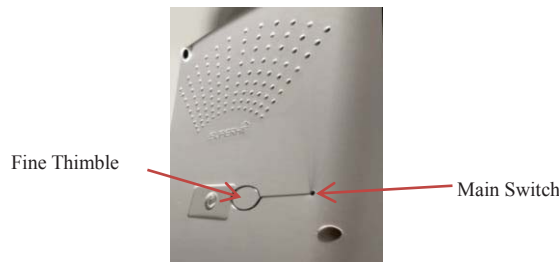
- 1) Conductive pole piece and magnet fall out or go black or deformed due to heat at the joint or other poor connection scenarios.
- 2) The front and rear shells of plastic parts fall out separately.
- 3) The power connecting wires and charging connector fall out with interior wires coming out.
- 4) Conductive metal comes out of the broken exterior layer of power connecting wires.

6. Instructions for Trolley Usage

6.1 Power On/Off

Power On: Use a fine thimble/clip to press on the button once to power on.

Power Off: Use a fine thimble/clip to press on the button once to power off.



6.2 Network Requirement and Connection Setup

(1) Network Requirement

- ① The trolley can connect with outer network with more than 100M bandwidth;
- ② AP frequency 2.4GHZ and 5GHZ;
- ③ The absolute value of network intensity is less than 70dbm when the network signal covers each corner of the store.
- ④ If the trolley connects with public network in the store, a network segment shall be used specifically for the shopping trolley with password.

(2)Set Up to Connect with the Internet

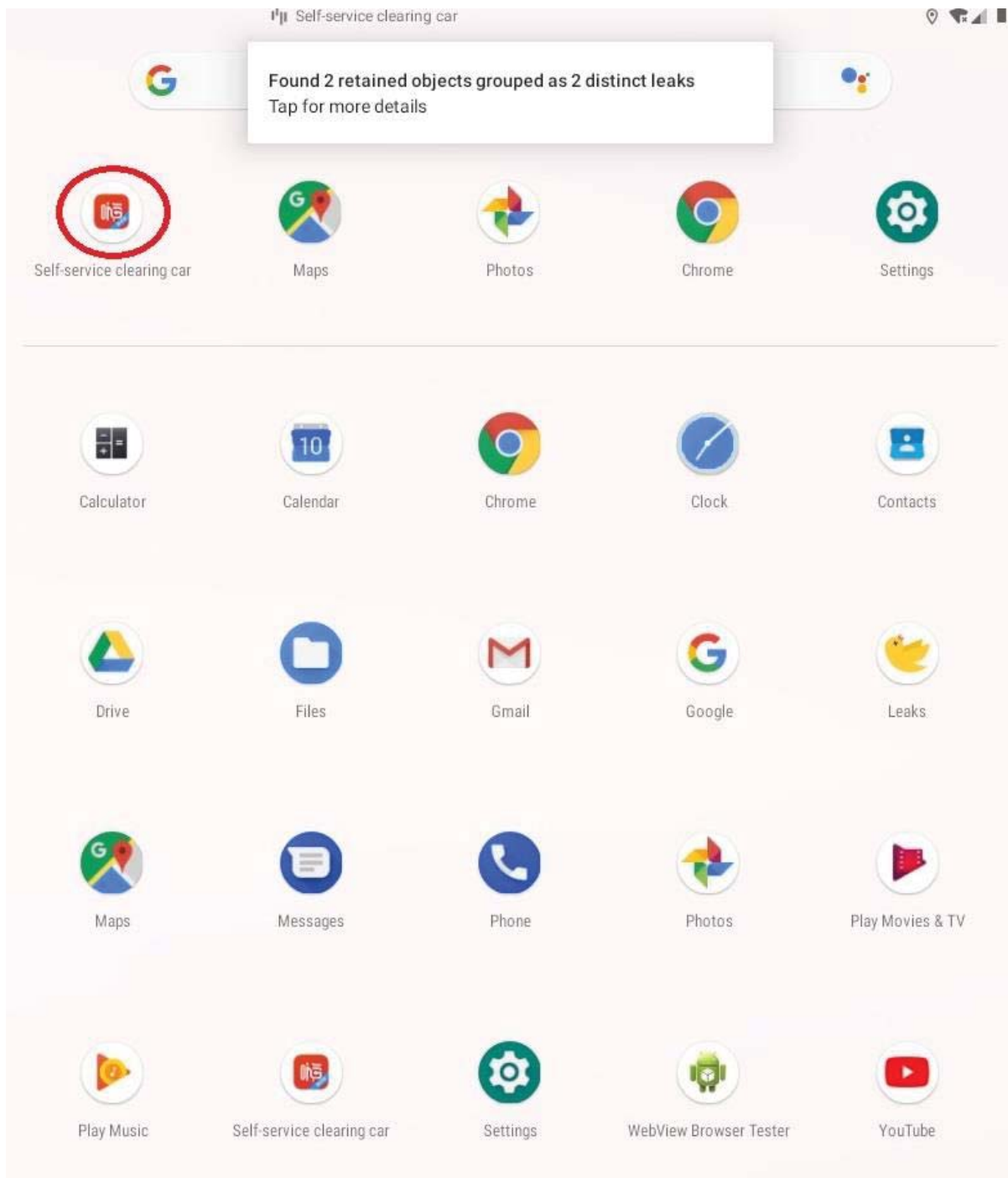
On the home screen, scroll up from the screen bottom to open the built-in App menu.

WiFi Connection:

- ① Click on [Setup] App;
- ② Setup-WLAN-Click On Switch-Choose the Right WiFi Name-Connect.

6.3 Software Configuration

① On the home screen, scroll up from the screen bottom to open the built-in App menu and then enter “SuperHii”App. (slightly different icons in different versions but share the same name “SuperHii”)



② Enter administrator password chaohichaohi, click on “Yes” button and then the system initialization process starts.

Welcome to use

Superhii Smart Shopping Cart



Administrator validation

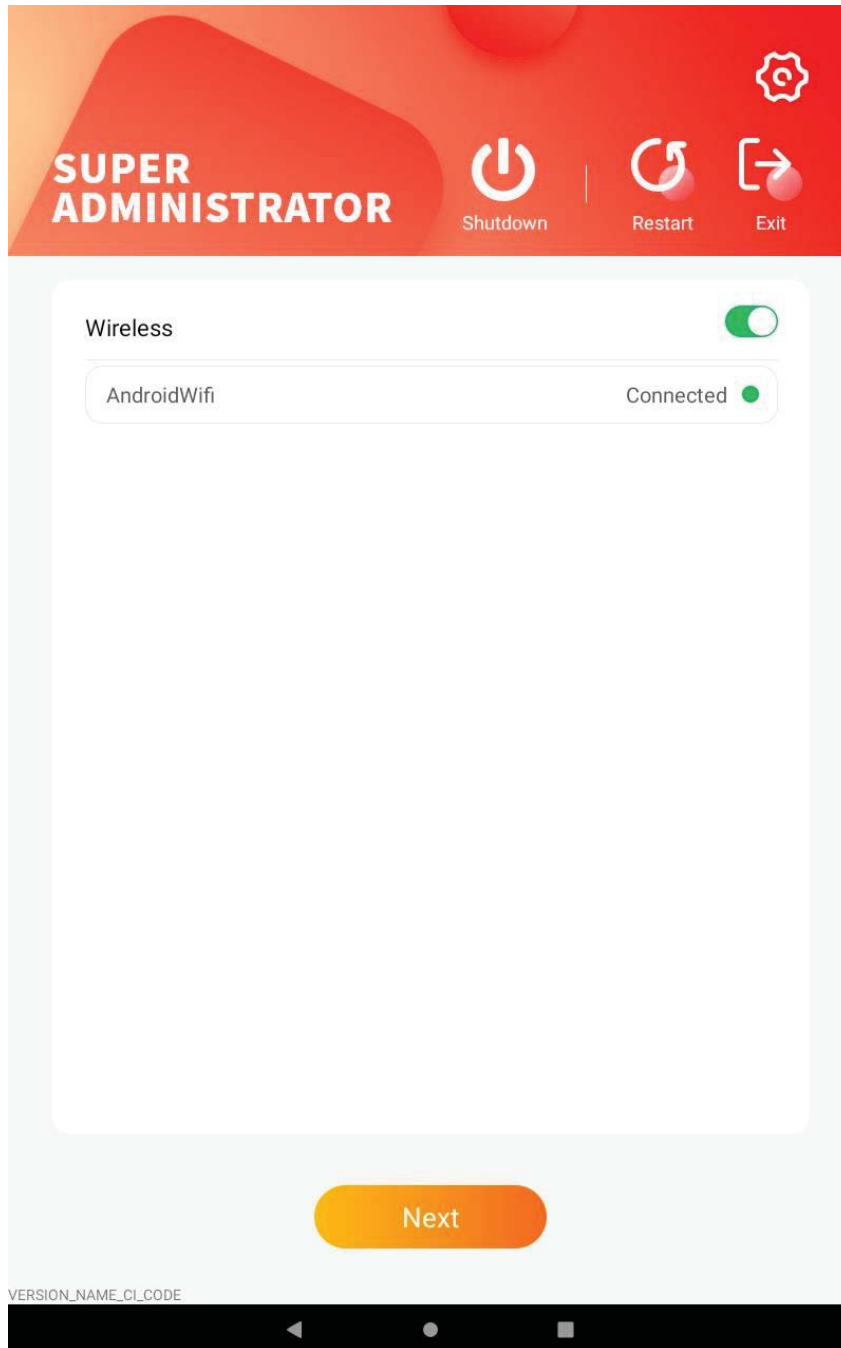
Enter admin password

OK

SUPERHII 超嗨

Reinvent retail efficiency and make shopping fun

③ The initialization process starts with network setup: choose the WiFi in the store or mobile phone hotspot to be connected, enter network password to connect; after connection, click on “Next” to the next step.



④ The second step is to level PAD: make sure the trolley is level in idle state for 3s. After the trolley automatically record PAD level angle, click on “Next” to the next step.

SUPER ADMINISTRATOR



Shutdown



Restart

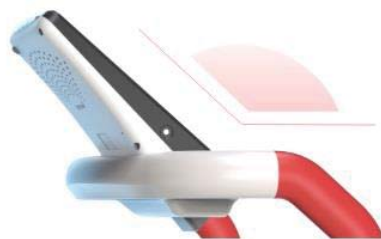


Exit



The angle setting

Please keep the cart still



Best angle : 133° ~ 147°

Current Angle:

139

update

Next

VERSION_NAME_CI_CODE

⑤ The forth step is to configure supermarket information: click on “Supermarket Name” and choose the right store.

The screenshot displays the 'SUPER ADMINISTRATOR' app interface. At the top, there is a red header bar with the app name 'SUPER ADMINISTRATOR' on the left and three icons on the right: a power button labeled 'Shutdown', a circular arrow labeled 'Restart', and a door icon labeled 'Exit'. Below the header, the main content area is titled 'Market config'. It shows the store name '超嗨' (Chao Hai) and a logo with the text '(演示店)' (Demo Store). Below this, the store name '超嗨演示门店' (Chao Hai Demo Store) is displayed. The 'Service IP' field contains the URL 'https://hi-cart-cn.chaohi.cn'. The 'Mac IP' field shows the address '02:00:00:00:00:00'. The 'RFID Tag' field is currently 'null'. At the bottom of the config area is a large orange button labeled 'finish'. The bottom of the screen shows a black Android navigation bar with the text 'VERSION_NAME_CI_CODE' above it.

SUPER ADMINISTRATOR

Shutdown Restart Exit

Market config

超嗨

(演示店)

超嗨演示门店

Service IP :

<https://hi-cart-cn.chaohi.cn>

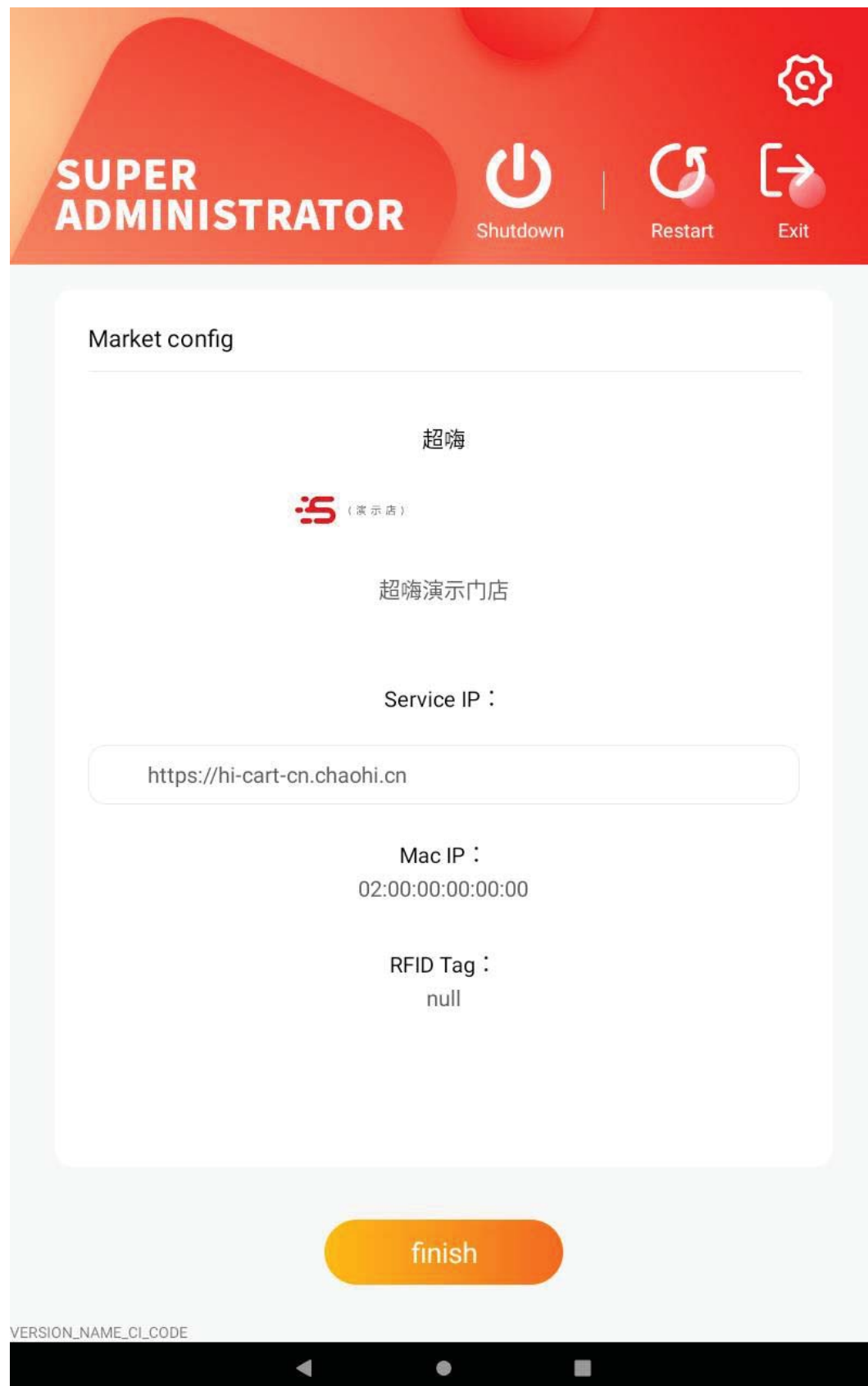
Mac IP :
02:00:00:00:00:00

RFID Tag :
null

finish

VERSION_NAME_CI_CODE

⑥ After synchronization, Upgraded will be displayed on the screen. Click on “Ok” and then the initialization process finishes.



⑦ Click on “Ok” button, and the screen will automatically display home page in the system as shown below.



Mobile shopping enjoy convenient
Direct leave without queuing



Starting shopping

Free

Agree with <user agreement>

VERSION_NAME_CI_CODE



6.4 Charging

1) Charging Method

a) Magnetic Alternating Charging Device

Put all trolleys to be charged in place→make sure magnetically attraction between one magnet suction charging spot and the next one

Magnetically attract and connect the charging plug of the magnetic suction charging device with the front charging spot of the first trolley



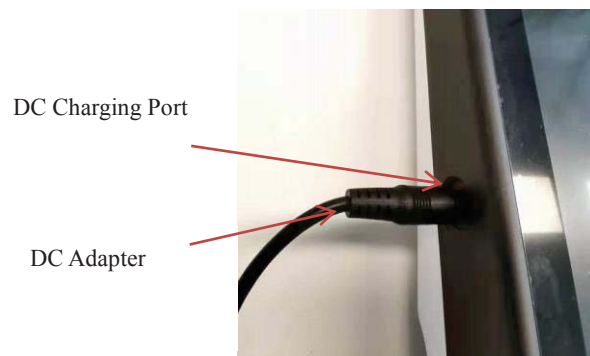
b) Charge DC Adapter (Suitable for One Single Trolley)

① Plug the adapter in DC charging port on the smart terminal.

② Power on the adapter.

Follow the above step ① and then step ② please.

Note: Keep other trolleys away from the trolley with the device plugged in. Due to low power of DC adapter, connecting multiple trolleys may cause overload and potential safety hazard.



2) Trolley Charging Status Precaution

The trolley shall be charged with power on.

Red light on the top of smart terminal indicates charging; green light for fully charged.

7. Daily Management

7.1 Daily Charging

- 1) The trolley shall be charged after the store closes every night;
- 2) The trolley shall be charged for more than 5 hours each night to guarantee normal operation in full load on the next day;
- 3) Make sure all trolleys turn on normal charging mode when they are charging, which can be indicated by the red indicator light on smart terminal; green light for fully charged.

7.2 Startup Check

- 1) With power on, after one “Beep” sound, the trolley can automatically start up its system;
- 2) After activation, the home page will display on the smart terminal.

7.3 Trolley Circulation

- 1) when the store opens each day: put trolleys at the entrance for shoppers’ convenience;
- 2) During business time of the store each day: make sure each trolley after shopping is timely put back to the store entrance for new shoppers.
- 3) When the store is closing each day: move trolleys to charging location and charge them.

8. Maintenance Method

8.1 Maintenance Period

Clean trolleys one time monthly.

Inspect all trolleys quarterly.

8.2 Trolley Cleaning

Key Spot for Scrubbing (Wipe Up with Cleaning Cloth Dipped in Alcohol)

- ① Front and Rear Magnetic Suction Charging Spots (as shown below)



- ② Smart Terminal Screen
- ③ Trolley Basket and Body (By Wet Cleaning Cloth)

8.3 Inspection

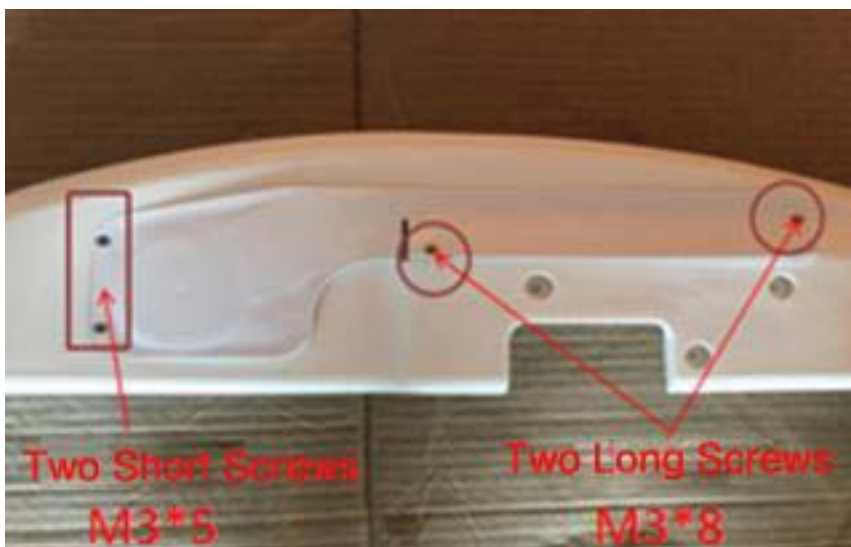
Check one by one and fasten screws:

Screws on Smart Terminal (as shown in the following picture)

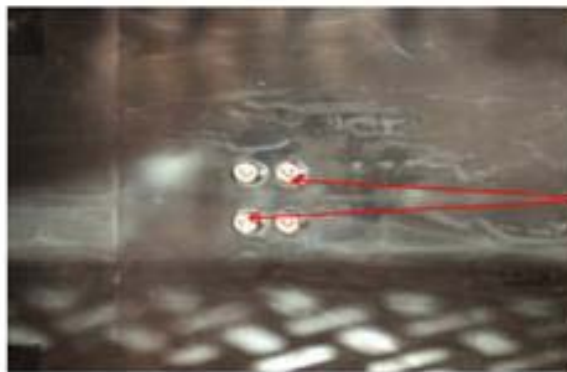


Three M5X25 Screws

Screws on the Wireless Module Cover of Trolley Body (As Follows)



Shopping Basket Retaining Screws (As Follows)

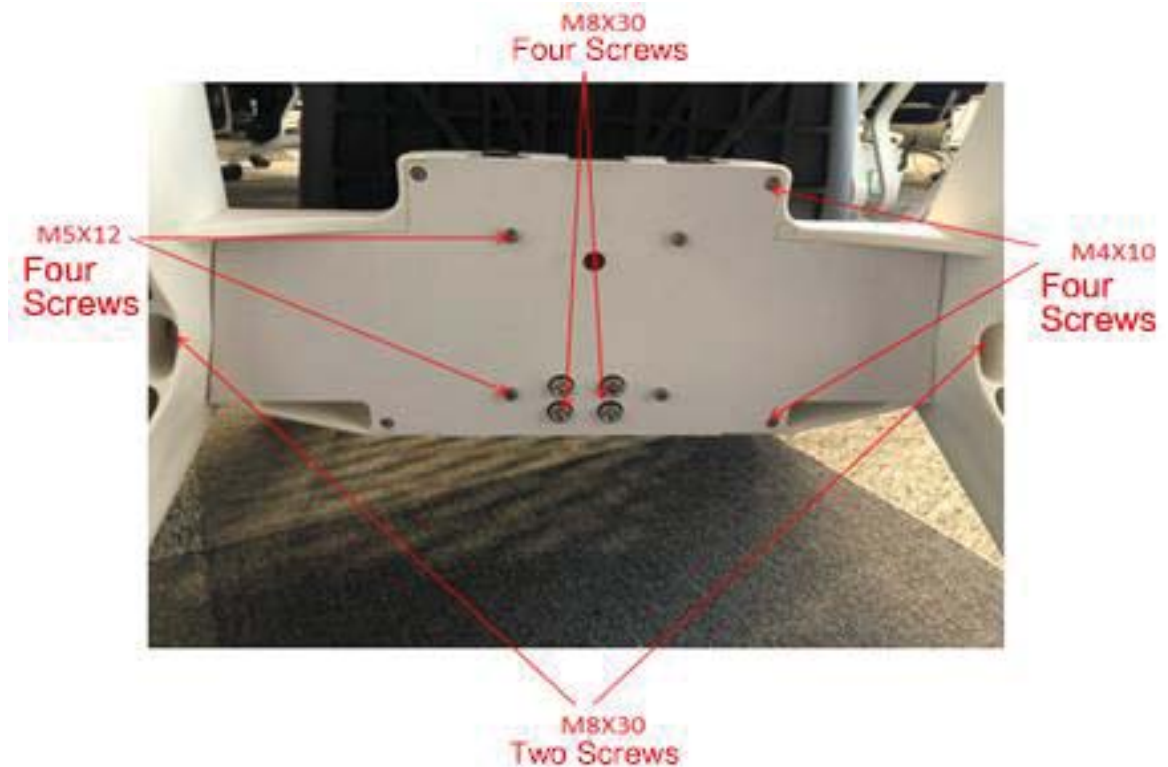


M8×30
Four Screws



M8×25
Four Screws

Screws on the Bottom of Trolley Body (As Follows)



9. Common Fault Analysis and Troubleshooting

9.1 Charging Problem

1) **When the trolley is charging, if all indicator lights of the trolley are off and the green indicator light on the mainframe of magnetic charging device is off, check the following items please:**

- ◆ Whether the magnetic charging device turns on power;
- ◆ Whether the power meet the requirements of voltage and current for the magnetic charging device.

2) **When the trolley is charging, if all indicator lights of the trolley are off but the green indicator light on the mainframe of magnetic charging device is on, check the following items please:**

- ◆ Whether the charging chip of the magnetic charging plug is clean or covered by some foreign object;
- ◆ Whether the electrodes of the charging chip on the magnetic charging plug are matched with that of the magnetic charging spot on the first trolley and sufficiently connect.

3) **When the trolley is charging, if the indicator light is off on some certain trolley, check the following items please:**

- ◆ Whether trolleys are put into right places for charging and adjust the trolley with indicator light off to sufficiently connect with the magnetic charging spot of the trolley in front of it.
- ◆ Whether the magnetic charging spots of the two adjacent trolleys are clean or attached by some foreign object;
- ◆ Whether the main switch of the trolley with indicator light off starts up.

If the charging problem cannot be fixed after checking the above items, contact the after-sale personnel of SuperHii Technology to fix it please.

9.2 Smart Terminal Display Problem

If black screen display after the smart terminal being activated,

- a) Check whether the smart terminal turns on power.
- b) Whether the shopping trolley is sufficiently charged.

Solutions: do a charging test on the trolley and observe battery status by the smart terminal indicator light: green light for fully charged; red light for being charging. Charge the trolley with insufficient battery.

If the charging problem still exists after checking the above two items, contact the after-sale personnel of SuperHii Technology please.

9.3 Scanning Problem

If the scanner with light off cannot read out a bar code:

- ◆ If the problem occasionally occurs, restart the trolley, and scan the code again.
- ◆ If the above method does not work, or the above problem frequently occurs, perhaps the connecting wires of the scanner are loosened or break down. Then contact the after-sale personnel of SuperHii Technology to settle the problem.

9.4 Abnormality of Weight Sensor (Zero Weight Setting for Unloaded Trolley)

If the weight data is abnormal on the weight sensor with erroneous weighing alarm, the following steps are recommended to reset the weight sensor.

- ◆ Firstly, take out all items inside the trolley, and put the trolley on level ground;
- ◆ Enter the following screen page, click on the upper left corner for six times, to open the super administrator login page;



(演 示 店)

Mobile shopping enjoy convenient
Direct leave without queuing



Starting shopping

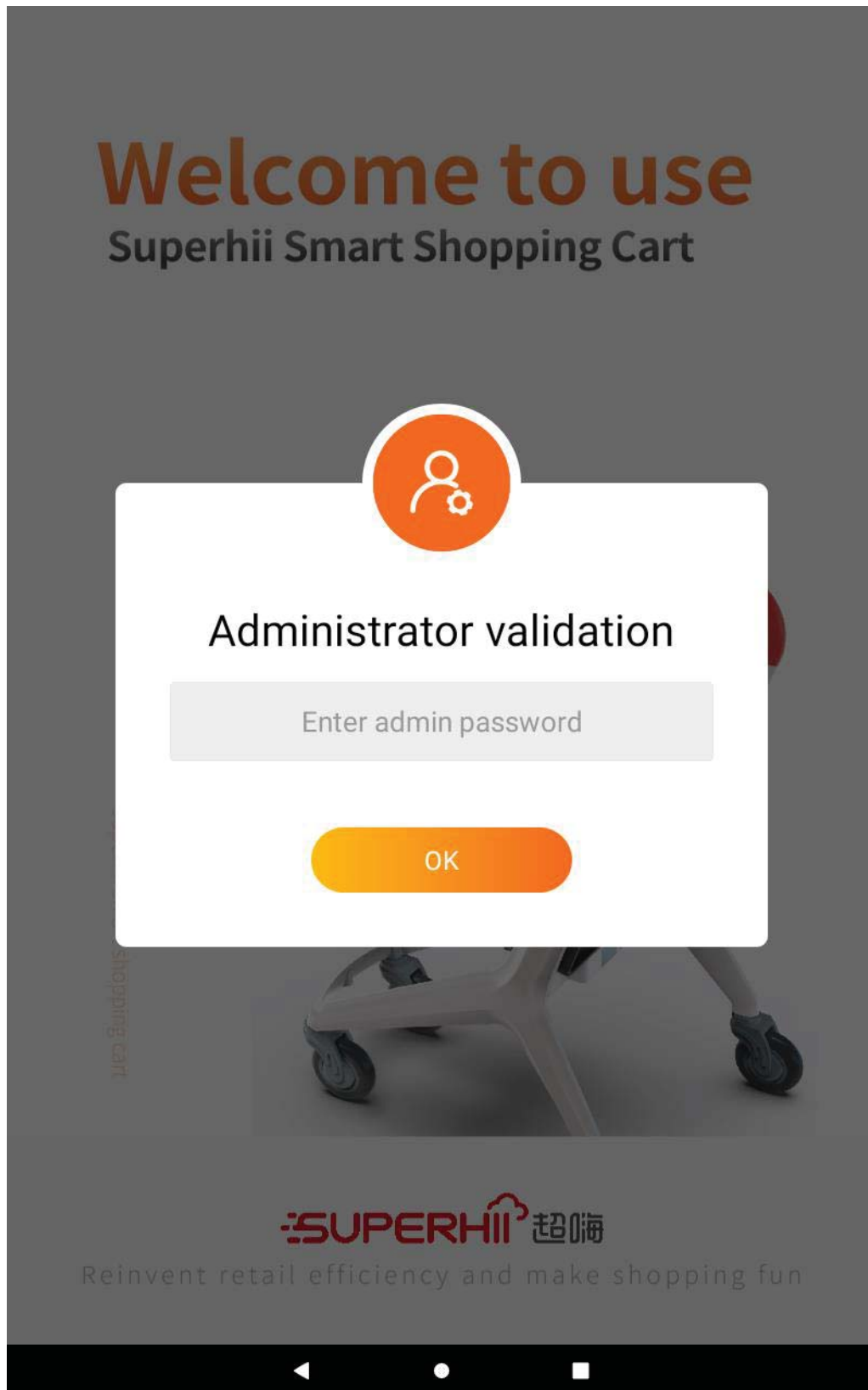
Free

Agree with [<user agreement>](#)

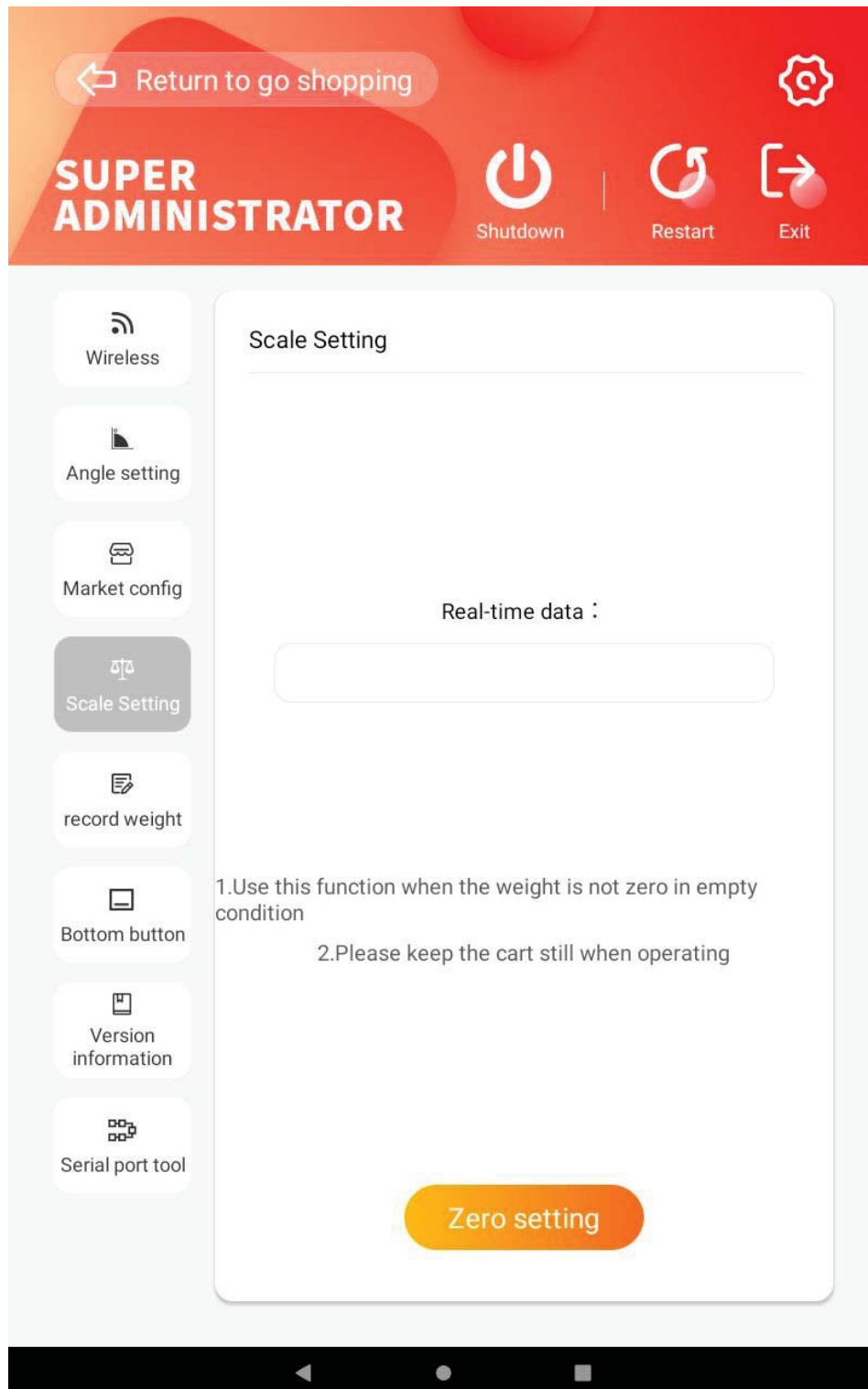
VERSION_NAME_CI_CODE



- ◆ Enter administrator password: chaohichaohi;



- ◆ Enter “Weight Setting” option, and if real-time data on the page is not zero, click on the “Zero Setting” button on the bottom;



- ◆ When zero setting is done, click on the “Back to Shopping” button on the upper left corner of the “Weight Setting” page and go shopping.

10. Warranty Policy

After 15 days from the second day of receiving the trolley by a user, if any fault is confirmed as performance failure of non-human damage by the After-sale Service Center of SuperHii Technology, SuperHii Technology will provide repair services to such user.

Please refer to the contract for a bulk order, in which after-sale spare parts can be offered for replacement in the warranty period.

See the following table for the warranty periods of the complete trolley and parts:

Type	Warranty Scope	Warranty Period
Mainframe	Frame Assembly, Shopping Basket, Smart Terminal, Trolley Wheel, Control Bus, Power Switch	1 Year
Accessory	Sensor	1 Year
Other	Battery	6 Months

11. Non-warranty Clause

The following scenarios are not included in the scope of warranty:

- 1) The “Three Guarantees” (for repair, replacement and refund) period expires;
- 2) Invoices cannot be presented, or the products applied for warranty are not sufficiently invoiced;
- 3) Any damage (such as soaked in liquid, shatter crack, crash, burnout of printed substrate and functional device) caused by failure to use, maintain and adjust our products as stipulated in our *Product Manual*;
- 4) Randomly dismantle or repair or refit our products by staff unauthorized by SuperHii Technology (including modifying hardware or system software);
- 5) The warranty period expires according to the product serial number, and repair certificate is abnormal or cannot be presented (including the content on the certificate inconsistent with the logo of our product in kind, or altered);
- 6) The nameplate attached to our product mainframe is damaged or lost, or the tamper-proof

label damaged or randomly replaced, or water-proof label is discolored;

- 7) Any damage or functional abnormality of our products due to failure to follow instructions in our Product Manual or connecting our products with accessories not produced by SuperHii Technology;
- 8) Any wear-down, crack, breaking, broken hole, burning, sealing-off of shell components beyond touch screen in usage;
- 9) Any damage or fault of our shopping trolley caused by force majeure (such as earthquake, fire disaster, lightning stroke, unstable voltage etc.);
- 10) If the scenarios in the above 1-9 items occur, users shall pay repair fees separately.

SuperHii Technology

Address: 1804-1904 , Block A, National Digital Publishing Base, Yanta District, Xi'an City, Shaanxi Province, China

Service Hotline : 400-877-6002

Email : services@superhii.com

www.superhii.com

MADE IN CHINA

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.

FCC Warning

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.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.