



**Making Your Job More Enjoyable**

**Wireless Refrigerant Scale  
VRS-50i-01/VRS-100i-01**



**VALUE Mechanical & Electrical Products CO., LTD**

Add: Jiulong Avenue, Western Industrial District, Wenling, Zhejiang, China

Tel: +86-576-86191959

Fax: +86-576-86191957

Email: [value@worldvalue.cn](mailto:value@worldvalue.cn)

[www.worldvalue.cn](http://www.worldvalue.cn)



**VALUE** • Quality Assurance

**NAVTEK™**  
High-end Series

Dear customer:

We are extremely grateful that you have decided to purchase the all new NAVAC series of products.

In order to correctly use this product, please carefully read this instruction manual in full prior to usage, especially on Notes and Warnings.

**⚠ Note**

The manufacturer is not responsible for any radio or tv interference caused by unauthorized modifications to this equipment. Such modifications could void the user 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.

## CONTENT

I. Product introduction .....	1
II. Function parameters .....	1
III. Product description .....	1
IV. Operating instructions .....	3
V. Maintenance .....	9
VI. Attached list .....	9

## I. Product introduction

VRS-50i-01/VRS-100i-01 is a wireless smart e-Scale that is supported by VALUE advanced technology and all new design concept. It's primarily used for maintenance and installation in HVAC industry, to set refrigerant amounts for charging and recovering, to weight and promptly issue warning alerts. And it was approved by FCC-ID and RED certifications.

The product was designed primarily from the perspective of the end user. It is a magnesium-alloy cast scale plate and bag design make it light and easy for users to carry. The hand-held scale plate design makes it easier for users to retrieve and store. A nice placement of hand-held device with the weight scale provides better protection and a longer life for the hand-held device.

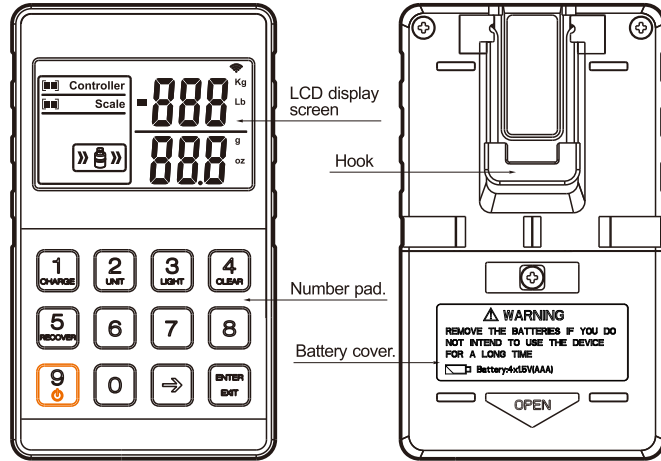
## II. Functional parameters

Model	VRS-50i-01	VRS-100i-01
Maximum weight	50 Kg	100 Kg
Resolution	2g	5g
Accuracy	0.05% F.S	
Power source	4x1.5V AA alkaline battery/ 4x1.5V AAA alkaline battery	
Work environment	-10~40°C	
Scale dimensions	260x220 mm	
Weight	2.0 Kg	
Wireless broadcast distance	10m, it recommended that normal weighing within 5m, function operation within 3m	

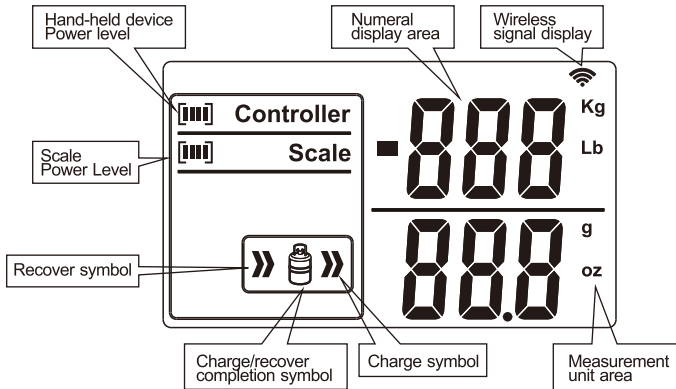
## III. Product description

### 3.1 Explanation diagram





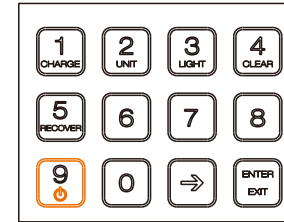
### 3.2 LCD Display Screen Description



## IV. Operating instructions

### 4.1 Button function description

#### 4.1.1 Hand held device buttons



#### 4.1.2 Scale buttons



No.	Button	Function description
1		Combo button: Numeric button 1 and Charge button.
2		Combo button: Numeric button 2 and Measurement unit switch button.
3		Combo button: Numeric button 3 and Back light On/Off button, Automatically close after 30 seconds by default
4		Combo button: Numeric button 4 and Clear button.
5		Combo button: Numeric button 5 and Recover button.
6		Numeric button 6
7		Numeric button 7
8		Numeric button 8
9		Combo button: Numeric button 9 and Power On/Off button
10		Numeric button 0.
11		Shift button.
12		Combo button: Enter and Exit button.
13		Power button
14		Wireless synchronous communication key

**Note:** The numeric buttons can only be used in Charge or Recover modes, the remaining are all function buttons. Once successful matching is established, pressing down and hold on the hand-held device power On/Off button will switch off both.

## 4.2 Operating instructions for specific functions

### 4.2.1 Start-up mode

Hand-held and scale will be made by paired test before it leaves factory, firstly switch on hand held, press the power key, It is successful linked while scale wireless connection indicator(blue light) long bright, and meanwhile wireless signal indication and power displayed on the LCD screen. The scale is on ordinary weighing mode at this situation.

(Note 1: The hand-held device will be automatically shut down after 5 minutes if it failed to connect the pan; if connection succeeds, the scale will be closed automatically if the weight on the scale will not change in 10 minutes; the actual weight will be displayed when the weight on the scale more than 2Kg as it re-started.

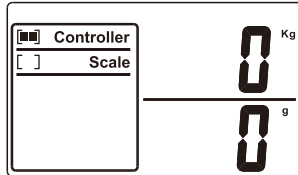
(Note 2: Overweight alarm warning: the LCD screen display "OL" as if weight exceeds the maximum weighing range, and the buzzer alarm, in order to avoid the damage of electronic scales, please immediately remove the object.)

(Note 3: Please check if the code on the back of hand held in accordance with the code on back of pan)

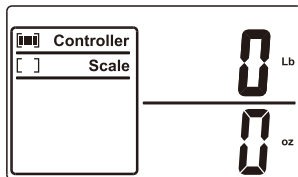
### 4.2.2 Measurement unit setting

With measurement unit setting, you can switch between Kg + g or Lb + oz units.

1. After switching on the hand-held device, the LCD display will be as follows (the default unit is kg +g):



2. Depending on the different requirements, press the **[2]** key, and the weighing unit will switch to Lb + oz, which will be displayed as below:



### 4.2.3 Back-light setting

You can select with or without the back-light, based on different conditions. The default setting is no light. Press the **[3]** button in order to switch on the light, and press it again to switch it off. The light

stays on for 30 seconds, after 30 seconds it will switch off automatically.

### 4.2.4 Clear setting

In the standard weighing mode, pressing **[4]**, the weight value of the item on the scale will be set to zero.

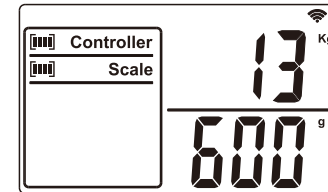
The scale peels off automatically, data display will be set to "0" as if weight of the scale is less than 2Kg, and equal or more than 2Kg without making any changes and output with actual weight data.

Note: while use the clear setting, to ensure the scale using in normal range, the weight addition of clearing priority and after clearing is not exceed the measuring range of the scale.

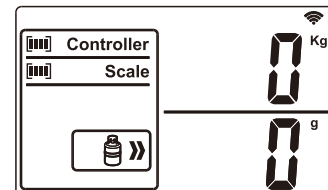
### 4.2.5 Charge mode operation

The user can use this function to rapidly and safely add refrigerant to the system. After entering the "Charge" mode, enter the charge value, and start charging. The minimum charge amount is 50g.

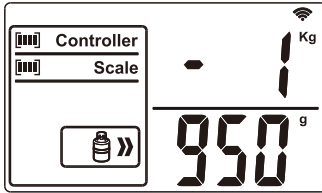
- 1) Switch on e-Scale.
- 2) Place the refrigerant container on the scale, and wait until the reading stabilizes, displaying the total weight of the container. For example, if the container's total weight is 13.6Kg, the display will be as follows:



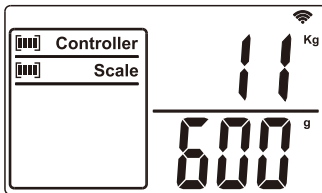
- 3) Press **[1]** and the LCD screen will display the "Charge" function sign. Then enter the net weight value for addition, and after pressing the ENTER button **[ENTER]** the net weight charged will be displayed, that is, the net weight added from the container to the system. For example, if you want to add 4Lb+6.5oz of refrigerant, first press **[1]**, then the enter "0-0-4-0-6-5" on the number pad based on the LCD flash figure, then press **[ENTER]**. The following will be displayed.



4) After entering "Charge" mode, "»" of the charge symbol will begin to flash. When the charge volume is down to 0.05Kg, the e-Scale will begin to sound an alarm, and Charging/Recovery Complete sign will begin to flash, indicating to the user that charging is about to finish. The following will be displayed:



5) When the charge weight displayed reaches the set charge amount, charging is complete, then you will manually terminate the system charging, and press , alarm stops. At this point the LCD screen will display the gross weight of the refrigerant container.



**Note:**

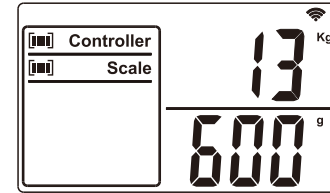
During the charge input entering process, if there is an input error need to be re-entered, you only need to press the shift button , move the flashing figure to the position of the figure to be corrected, re-enter the correct figure to complete the correction of the charging weight. Firstly charging default is 0 after hand held start-up, and press again "charge" will be displayed the measurement of the last charge.

**4.2.6 Recover mode operation**

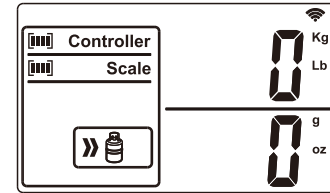
This function allows users to rapidly and safely recover refrigerant from the system. After entering "Recover" mode, enter the recover value to start recovery process. The recovery volume must be at least 50g.

- 1) Switch on the e-Scale.
- 2) Place the refrigerant container on the scale and wait until the reading stabilizes, displaying the

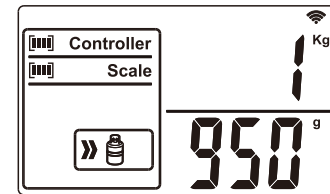
total weight of the container. For example, if the total weight of the container is 13.6Kg, the display will be as follows:



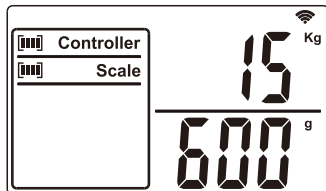
3) Press the recover button and the LCD screen will display the recover symbol. Enter the net value you wish to recover, and press Enter . At this point the net weight of refrigerant recovered to the container from the system will be displayed. For example, if you want to recover (not charge?) 2Kg of refrigerant, first press the recover button , then enter "0-0-2" via the key pad in accordance with the flashing number on the LCD display screen, before pressing . The display will be as follows:




4) After entering "Recover" mode, "»" of the recover symbol will begin to flash. When the recover weight is down to 0.05Kg, the e-scale will begin to issue an alarm sound, and the charge/recover completion symbol will begin to flash, telling the user that the recover is about to finish. The display is as follows:



5) When the recover weight reaches the pre-set recover weight, recover is completed, and you can manually end system recover, and pressing , the alarm sound stops. At this point the LCD screen will display the gross weight of the refrigerant container.



**Note:**









During the recover input entering process, if there is an input error need to be re-entered, you only need to press the shift button , move the flashing figure to the position of the figure to be corrected, re-enter the correct figure to complete the correction of the recover weight. Firstly charging default is 0 after hand held start-up, and press again "recover" will be displayed the measurement of the last recovery.

**Warning:**

The recovered refrigerant volume cannot exceed 80% of the total capacity of the refrigerant container. This is extremely dangerous.

#### 4.2.7 Bluetooth Synchronization Setup

If the handheld device or weight pan needs to be changed, it is needed to synchronize the bluetooth, as follows,

1. Press and hold 1 second  to turn on the scale, then the sync light flashes.
2. When the handheld device is at off state, press , , , ,  in sequence, then the handheld device enters sync program, the LCD shows , the alarm buzzes. The sync will be done within 1 minutes, the LCD shows , the alarm buzzes for 2 seconds. Conserve the new MAC address, the handheld device turns off automatically.








**Note:**

if the sync is not done within 1 minutes, the handheld device is out of sync program. Keep the previous MAC address, and the handheld device turns off automatically.

#### 4.2.8 Calibration

**Note :**

Confirm the models are VRS-50i-01, or, VRS-100i-01 before calibration, the weighing range is 50Kg, or, 100Kg. Make sure the battery power is enough to assure accuracy for calibration. If the battery power is low, Low-Battery red light flashes 10 seconds fastly and then turns off automatically, and the calibration fails.

1. When the weighing pan is at off state, press  first, and then . At this moment, Low-Battery red light is on. Keep the two buttons pressed for 10 seconds, till the Bluetooth blue light is on. Loose the , then Low-Battery red light is off. Keep pressing the  for over 5 minutes, till the Low-Battery red light and Bluetooth blue light flashes alternately. Loose the , then the Low-Battery and Bluetooth is on to start the calibration program.
2. Within 10 seconds, press  or , to represent VRS-50i-01, or, VRS-100i-01. Then Low-Battery red light and Bluetooth blue light flashes fastly. Keep the scale is unloaded. When the Low-Battery red light and Bluetooth blue light flash 1 second simultaneously, place 40 Kg standard weight on VRS-50i-01, or, 80 Kg on VRS-100i-01, waiting for the automatic calibration. If the calibration succeeds, the Bluetooth blue light is on for 10 seconds, and the scale turns off automatically. If the calibration fails, the Low-Battery red light is on for 10 seconds, and the scale turns off automatically.

**Note:** after calibration, press  2 seconds, to turn off scale manually.

### V. Maintenance

- 1) Only use a moist cloth and a small amount of cleaning fluid when cleaning the surface of the e-scale, and make sure to avoid using chemical solvents to wipe the product.
- 2) If repair is required, contact a VALUE dealer company. Once the device is opened by an individual or non-authorized company, we will no longer provide warranty.
- 3) After finishing usage, promptly turn off the e-scale. When left idle for long-periods, promptly remove the battery.
- 4) Do not store the e-scale in moist, high-temperature or magnetized locations.

### VI: Attached list

1) E-scale (scale plate and hand held device)	1 set
2) User manual	1
3) 1.5V'AA' alkaline battery	4
4) 1.5V'AAA' alkaline battery	4
5) Bag	1

### Correct Disposal of this product

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

