



Empowering you to work smarter

Wireless Refrigerant Scale

# NRS3i01

## User Manual



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MADE IN PRC



Failure to follow warnings could  
result in death or serious injury.

**SAVE THIS MANUAL  
FOR FUTURE REFERENCE**

Dear customers,  
 Thank you very much for your purchase of the completely new series of NAVAC products. For your better use of the product, please read the user manual carefully before use, especially the parts labeled "Caution".  
 When finished reading the manual, please place nearby to be used as a reference when being used.

**⚠ 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.

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## I. Product introduction

NRS3i01 is a wireless smart e-Scale that is supported by NAVAC's advanced technology and all new design concepts. Its primary use is for installation and maintenance of HVAC systems, to set exact refrigerant weights for charging systems, and when recovering refrigerant from existing systems, and issue warning alerts when finished. It is approved and has FCC, IC and RED certifications.

The product was designed primarily from the perspective of the service technician. It is a magnesium alloy cast scale plate design, and the storage bag makes it light and easy for users to carry. The hand-held scale keypad design makes it easy for users to both retrieve and store. The internal storage compartment for remote keypad inside the scale provides better protection and a longer life for the keypad device.

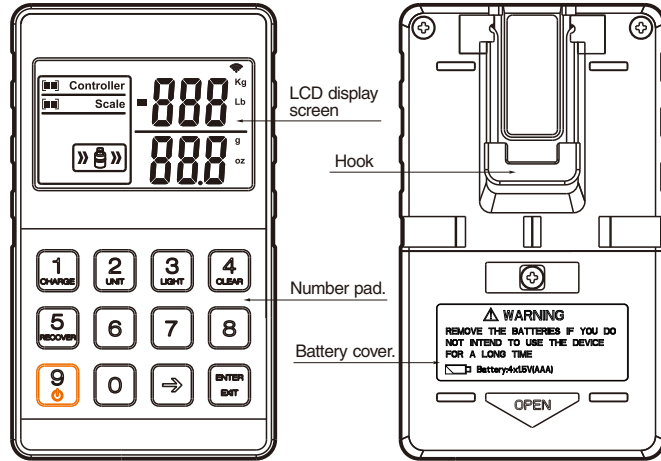
## II. Functional parameters

Model	NRS3i01
Weighing Range	265lbs / 120kgs
Resolution	0.3oz
Accuracy	0.05%
Power source	4x1.5V AA alkaline battery/ 4x1.5V AAA alkaline battery
Work environment	14~104 °F
Scale dimensions	12.6"x10.6"
Weight	10.4lbs
Wireless broadcast distance	32.8 feet, it recommended that normal weighing within 16.4 feet, function operation within 9.8 feet

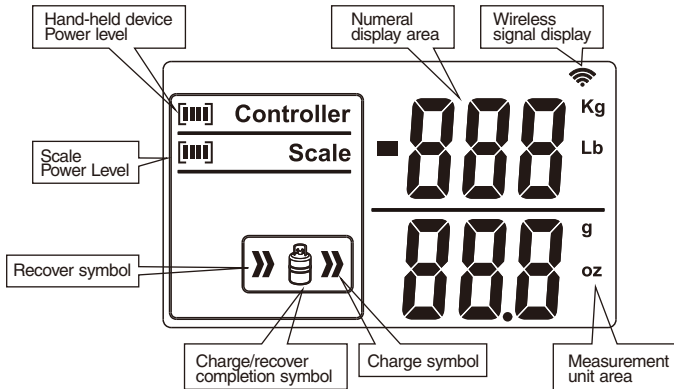
## III. Product description

### 3.1 Graphic illustration





### 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	1 CHARGE	Combo button: Numeric button 1 and Charge button.
2	2 UNIT	Combo button: Numeric button 2 and Measurement unit switch button.
3	3 LIGHT	Combo button: Numeric button 3 and Back light On/Off button, Automatically close after 30 seconds by default
4	4 CLEAR	Combo button: Numeric button 4 and Clear button.
5	5 RECOVER	Combo button: Numeric button 5 and Recover button.
6	6	Numeric button 6
7	7	Numeric button 7
8	8	Numeric button 8
9	9 with power icon	Composite key: numeric key 9 and power ON/OFF key (short press the key to turn it on and press it for 2seconds to turn it off)
10	0	Numeric button 0.
11	→	Shift button.
12	ENTER EXIT	Combo button: Enter and Exit button.
13	Power icon	Weighing scale power ON/OFF key (short press to turn it on and press it for 2seconds to turn it off)
14	SYNC	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, first switch on hand held, press the power key, A successful linkage will show the blue light on the scale being steady and wireless symbol will light up on the handheld 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 automatically turn off if there is no change in weight for 10 minutes; the actual weight will be displayed when the weight on the scale more than 4.4lbs as it re-started.

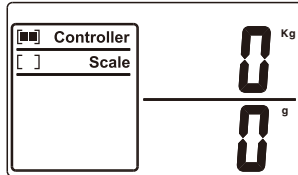
(Note 2: Overweight alarm prompt: if the goods being weighed is beyond the weighing range, the beeper alarms. Please take down the goods immediately from the weighing pan.)

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

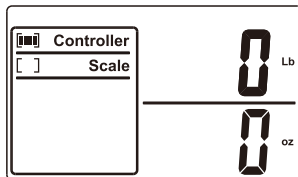
### 4.2.2 Measurement unit setting

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, holding the **[4]** button for 3 seconds will zero the scale.

The scale zeros off automatically and data display goes to "0" if weight on the scale is less than 4.4 lbs, or more than 4.4 lbs without making any changes to output with actual weight data.

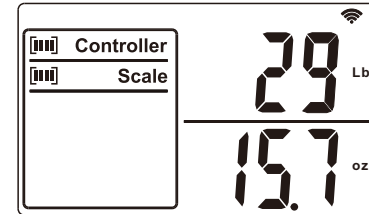
Note:

While using the Clear program, ensure the vessel on the scale is in weight normal range, and the weight does not exceed the measuring range of the scale.

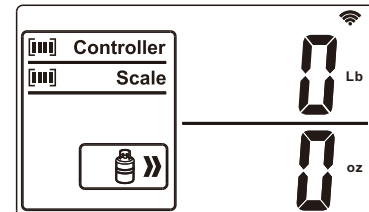
### 4.2.5. Charge mode operation

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 1.8 oz.

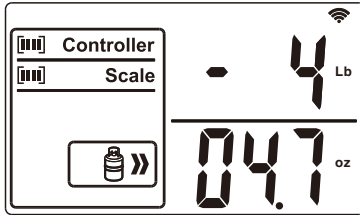
1. Switch on the scale.
2. Place the refrigerant container on the scale, and wait until the reading stabilizes, displaying total weight of the container. For example, if the container's total weight is 29Lb+15.7oz, the display will be as follows:



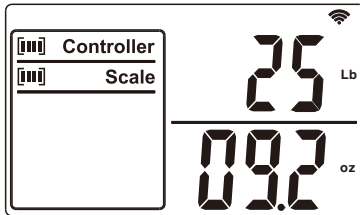
3. Press **[1]** and the LCD screen will display the "Charge" function sign. Then enter the net weight of the refrigerant to be added, and after pressing the ENTER button **[ENT]**, the net weight to be charged will be displayed. For example, if you want to add 4lbs+6.5oz of refrigerant, first press **[1]**, then enter "0-0-4-0-6-5" on the number pad based on the LCD flash figure, then press **[ENT]**. 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 the last 1.8oz, the 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 reaches the set charge amount, charging is complete, then you will manually terminate the system charging, and press **☞** and the alarm stops. At this point the LCD screen will display the gross weight of the refrigerant container.



#### Note:

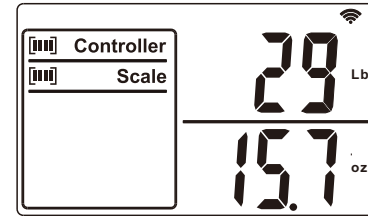
During the charge input entering process, if there is an input error need to be re-entered, you only need to press the shift button **☞**, to move the flashing figure to the position of the figure to be corrected. Re-enter the correct figure to complete the correction of the charging weight. Charging default is 0 after hand held start-up, and press again "charge" will display the measurement of the last charge. You can reset the charging weight at this time.

#### 4.2.6. Recover mode operation

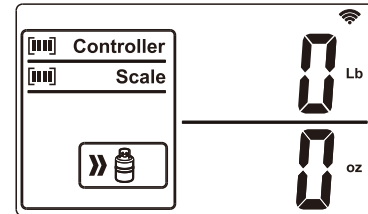
This function allows users to rapidly and safely recover refrigerant from the system. After entering Recover mode, input the recover value to start recovery process. The recovery volume must be at least 1.8 oz.

1. Switch on the 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 29 lbs+15.7oz, the

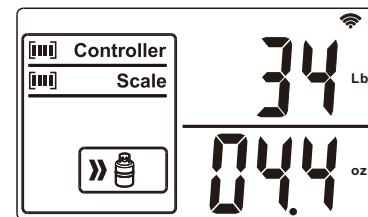
display will be as follows:




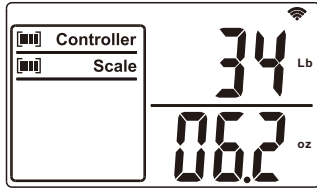
3. Press the recover button **☞** and the LCD screen will display the recover symbol. Enter the net value you wish to recover, and press Enter **☞**. At this point the net weight of refrigerant recovered to the container from the system will be displayed. For example, if you want to recover 4 lbs+6.5oz 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 1.8oz left to go, the 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 recovered weight reaches the pre-set recovery weight, recovery is completed, and you can manually end system recovery by pressing , and the alarm will stop. 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.









First 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. First, short press Power  key to start the weighing pan. The blue light for Bluetooth indicator on the weighing scale starts flashing and wait for pairing;
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.

**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 NAVAC 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

**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.

