



Empowering you to work smarter

## **NSP1** **Bluetooth Psychrometer** **with Digital Display** 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**

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## Warning

This product operates under high pressure. Follow all safety guidelines regarding refrigerant handling including wearing Personal Protective Equipment such as safety glasses, and gloves.



## Warning

This product contains a built-in lithium-ion battery.

- Do not disassemble, puncture, crush, or expose the battery to fire, high temperatures, or water.
- Use only the provided or compatible charger specified in the manual.
- Improper handling of the battery may cause fire, explosion, or serious injury.
- Dispose of the product following local regulations. Do not dispose of it with household waste.

## Dispose of this product correctly



This mark indicates that this product should not be disposed of with other household waste. It is important to prevent uncontrolled waste disposal that may be harmful to the environment or human health, please use a return and collection system or contact the retailer from whom you purchased the product. They can recycle this product in an environmentally safe manner.

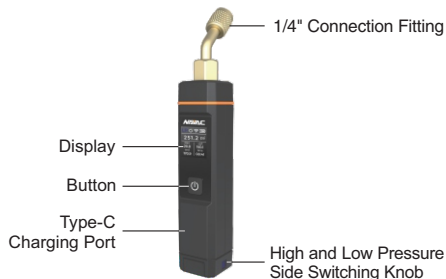
## I. Safety Information

Please read this manual carefully before operating, servicing, or maintaining the product. Doing so will help ensure long-term stable performance and provide a comprehensive understanding of the safety considerations and precautions associated with its use and operation.

Please carefully check if the product you received matches the one you ordered and ensure that the accessories and instruction manual are included. In addition, inspect for any damage that may have occurred during transportation. If you notice any of these issues, kindly contact our marketing department or local distributor promptly. Reading the manual carefully and following the correct operating procedures will help ensure safe usage and extend the equipment's service life. Follow these guidelines to prevent personal injury or death:

- Most governments and regulatory authorities require HVAC technicians to be trained and certified in the safe and proper operation of HVAC tools, such as this instrument. Proper training is essential for the safe use of this instrument, as it can be connected to various types of equipment through tubing and fittings.
- Read the entire user manual before using the instrument.
- Use the instrument only as specified in this user manual. Failure to do so may impair the protection provided by the equipment.
- Before using the instrument, inspect the case for any cracks or loose components. Do not use the instrument if it is damaged.
- The instrument contains no internal, user-serviceable parts.
- Do not open the instrument.
- Do not use the instrument if it operates abnormally, as this may impair its protection. If in doubt, have the instrument serviced.
- Do not operate the instrument near explosive gases, vapor, or dust.
- Ensure proper safety measures when connecting to piping that contains refrigerant.
- The test pressure must not exceed the specifications outlined in this manual.

## II. Product Overview



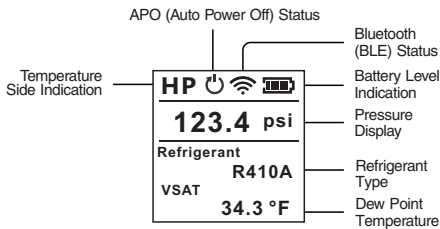
## III. Technical Specification

|                     |                              |
|---------------------|------------------------------|
| Model               | NSP1                         |
| Measuring range     | -29~725 psi                  |
| Measuring accuracy  | ±0.5% Full range             |
| Resolutions         | 0.01 psi                     |
| Working Environment | 14-122°F, <75% RH            |
| Battery             | 3.7V 1200mAh lithium battery |
| Bluetooth Range     | 164 ft (50m) line of sight   |

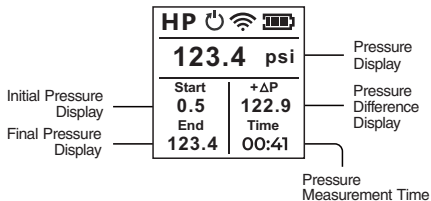


## IV. Screen Display

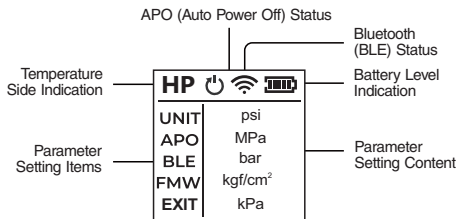
### Pressure Interface:



### Pressure Interface:



### Parameter Setting Interface:






| Parameter Setting Items       | Parameter Setting Content                                     |
|-------------------------------|---|
| UNIT<br>(Pressure unit)       | psi, MPa, bar, kgf/cm <sup>2</sup> , KPa                      |
| APO<br>(Automatic power off)  | ON, OFF   |
| BLE<br>(Bluetooth switch)     | ON, OFF   |
| FMW<br>(Hardware information) | VER: Hardware version;<br>MAC: Bluetooth address              |
| CAL<br>( Calibrate )          | YES: Start zero calibration;<br>EXIT: Cancel zero calibration |
| EXIT<br>(Exit Project)        | Return to home screen   |

## V. Indicator Light

1. Power Status
  - Powered On: Green light stays on.
  - Powered Off: Red light stays on.
- 2 Screen-On Mode
  - Green light blinks when buttons are pressed.
3. Screen-Off Mode
  - Bluetooth Connected: Green light flashes.
  - Bluetooth Not Connected/Broadcasting: Yellow light flashes.

## VI. Bluetooth Connection

- Bluetooth Disconnected or Broadcasting: The  Bluetooth icon blinks on the display.
- Bluetooth Connected: The  Bluetooth icon remains steady.
- Bluetooth Off: The  Bluetooth icon is not displayed.

## VII. Device Standby/Off

The device will automatically enter standby mode and turn off the screen after 1 minute of inactivity.

It will automatically power off if it has not been operated for 2 hours.

## VIII. Temperature End Indication

Rotate the rotary knob fully to the left to display the LP side on the device.

Rotate the rotary knob fully to the right to display the HP side on the device.

## IX. Button Function

Power on/off: Press and hold the button for at least 2 seconds to turn the power on.

To turn it off, press and hold the button for at least 2 seconds.

Function operation - Main interface:

1. In Interface I, display the pressure value. After connecting the APP, display the refrigerant type and the corresponding saturation temperature (dew point).
2. In Interface I, click the button to switch to Interface II, record the initial pressure value, and start the timer.
3. Click the button in the previous state to record the final pressure value and stop the timer.
4. Click the button in the previous state to return to Interface I.
5. Double-click on the main interface to enter the parameter interface.

Function operation - Parameter interface:

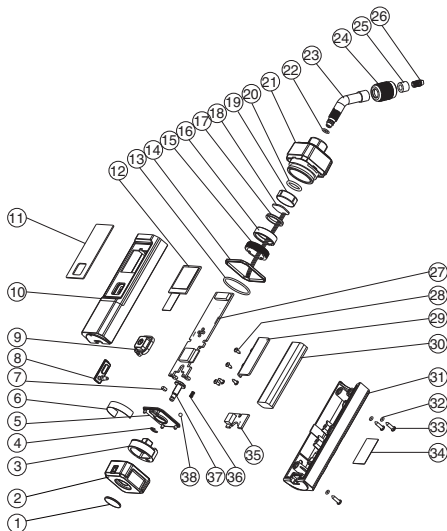
1. In the parameter interface, click to cycle through the left-side parameter setting items. The order is:
  - Pressure Unit
  - Auto Power Off (APO)
  - Bluetooth (BLE)
  - Device Information
  - Calibrate (CAL)
  - Exit Project (EXIT)
2. Double-click to access the right-side parameter setting options.
3. Click to switch the parameter option, then double-click to confirm.

### CAUTION:

1. If the device is in a ventilated state but the screen display is not 0, use the zero-point calibration function to improve measurement accuracy.
2. When measuring vacuum pressure, units will automatically switch to inHg, and the screen will display negative pressure values. These values are for reference only.



## X. Exploded View



## Spare Parts List

| No. | Item                   | No. | Item                    |
|-----|------------------------|-----|-------------------------|
| 1   | Decorative Cover Plate | 17  | Plastic Pressure Ring   |
| 2   | Square knob            | 18  | Sensor PCB              |
| 3   | Fixed Seat             | 19  | Ceramic Pressure Sensor |
| 4   | Opening Retainer       | 20  | O-Ring                  |
| 5   | Knob Cover             | 21  | Top Cover               |
| 6   | Logo Label             | 22  | O-Ring                  |
| 7   | Magnet                 | 23  | 45° Angled Mandrels     |
| 8   | Rubber Stopper         | 24  | Mandrel Nuts            |
| 9   | On/Off Button          | 25  | Rubber Seal             |
| 10  | Front Cover            | 26  | Valve Core Press Studs  |
| 11  | Transparent Window     | 27  | Main PCBA               |
| 12  | Display                | 28  | Self-Tapping Screws     |
| 13  | O-Ring                 | 29  | Battery Plate           |
| 14  | Decorative Ring        | 30  | Lithium Battery         |
| 15  | T-Bronze Pressure Ring | 31  | Back Cover              |
| 16  | Copper Spacer          | 32  | O-Ring                  |

| No. | Item                | No. | Item           |
|-----|---------------------|-----|----------------|
| 33  | Self-Tapping Screws | 36  | Spring         |
| 34  | Nameplate           | 37  | Retaining Stud |
| 35  | Charging Adapter    | 38  | Balls          |

## XI. Download Methods

## For Apple:

Search for "myNAVAC" in the App Store, then download and install the app.



iOS Download  
(iOS 12.0 or above)

## For Android:

Search for "myNAVAC" in the Google Play Store, then download and install the app.



Android Download  
(Android 7.0 or above)

## XII. Login Methods

## Account login:

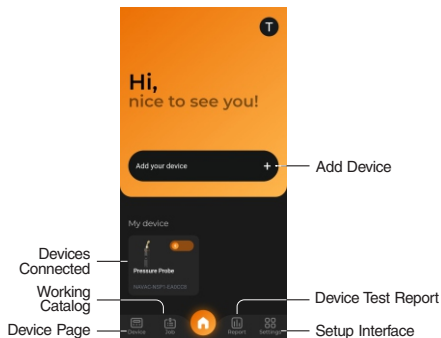
A network connection is required. All data records are stored on the server.

## Visitor mode:

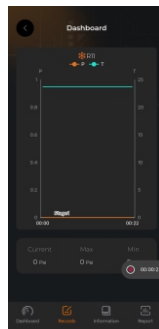
No network connection is required. All data records are stored locally on the cell phone.

### XIII. Page Introduction

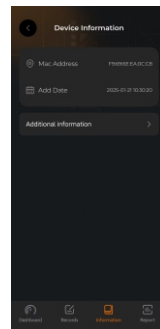
#### Main Interface:



#### Chart Record:



#### Device Information:



#### Dashboard Page:



#### Setup Interface:

