



MS-800 Series Manifold Instrument User Manual



1 Product Introduction

Welcome to purchase the Elitech MS-800 series manifold instrument, please read this manual carefully before use, to avoid illegal operation to bring harm to you and your products.

The MS-800 series manifold instrument integrates pressure-temperature mode, pressure-holding mode, vacuum mode, and data logging mode. It is suitable for daily troubleshooting, maintenance and repair of refrigeration and HVAC systems to help users provide more real and accurate data, greatly improve the efficiency of user's work on site, and can completely replace the existing mechanical gauge valves. Adopting dot-matrix LCD screen, rich interface effect, more intuitive data viewing, while supporting APP to view reports and data analysis, instant update of commonly used refrigerants, can be upgraded by remote firmware, and constantly improve the product user experience.

2 Safety Instructions

- 1.This product is not suitable for maintenance of ammonia (ammonia-containing) refrigerant systems.
- 2.This product contains batteries and should not be placed in high-temperature environments or thrown into fire, as there is a risk of explosion.
- 3.Do not use this product during thunderstorms to avoid being struck by lightning, endangering life, and damaging the product.
- 4.Strictly follow the safety precautions of the refrigeration system.
- 5.When using this product, please wear safety goggles and protective gloves, and read the maintenance manual of the system unit carefully before connecting to the system for maintenance operations.
- 6.If the product is found to be damaged, please contact us in time. Do not disassemble the product privately, as this may further damage the product and, in severe cases, cause the battery to catch fire or even explode.

3 Environmental Protection

- 1.Comply with local environmental policies. Refrigerants should not be directly discharged into the atmosphere and must be recovered using professional equipment.
- 2.At the end of the product's life, please recycle it according to local regulations. Do not dispose of it arbitrarily to avoid environmental pollution.
- 3.Take the scrapped old batteries to the specified waste battery collection point.

4 Overview

1. LCD screen	6. Temperature clamp connector-
2. Control buttons	7. Refrigerant pipe connection port(1/4SAE)
3. Liquid sight glass	8. Suspension device
4. Valve knob	9. Battery compartment (AA batteries*3)
5. Refrigerant tube holder	10. Information sticker



MS-810 series



MS-870 series

5 Button Functions

	<ol style="list-style-type: none"> 1. Long press: power on/off 2. Short press: turn on/off Bluetooth
	<ol style="list-style-type: none"> 1. Long press: Enter the setting interface 2. Short press: <ol style="list-style-type: none"> ① Mode switching (pressure temperature/holding pressure/vacuum) ② Setting interface to switch the main option
	<ol style="list-style-type: none"> 1. Short press: Turn on/off the backlight 2. Long press: <ol style="list-style-type: none"> ① Data calibration (air pressure calibration range: -14.5-100psi) ② Vacuum interface timer zero

	<p>Short press:</p> <ul style="list-style-type: none"> ① Pressure-holding interface to open pressure-holding test ② Vacuum interface to open the leakage test <p>2.Long press:</p> <ul style="list-style-type: none"> ① Pressure-holding interface ends pressure-holding test ② Exit pressure holding data result display interface ③ Vacuum interface ends leakage test ④ Exit vacuum data result display interface
	<p>Short press:</p> <ul style="list-style-type: none"> ① Switch refrigerant when unlocking ② Switching sub-options in the setting screen
	<p>Short press:</p> <ul style="list-style-type: none"> ① Switch refrigerant when unlocking ② Switching sub-options in the setting screen
<p>Press  and  at the same time</p>	<p>Press and hold for 3 seconds to unlock selection of refrigerant state</p>

6 Specification

6.1 Host parameter

Characteristics	Parameters
Measurement range	-14.5~800psi
Accuracy	±0.5%FS
Resolution	0.5psi
Units	psi、kg/cm ² 、kPa、MPa、bar、inHg
Refrigerant type	Device default 18 types, can be updated through APP
Selectable refrigerants	Equipment default type: R11 R12 R13 R22 R290 R32 R134a R404A R410A R407C R408A R409A R458A R448A R449A R500 R502 R600
Interface	1/4 SAE*3、3/8SAE*1 (MS-870S)

Power	supply 3*1.5V, AA batteries Battery life: not less than 150 hours (Bluetooth and backlight off)
Display	LCD screen
Main unit	Size: 186*186*66mm Weight: about 1300g
Main unit	Working temperature: -10~50 °C /14~122°F Storage Temperature: -20~60 °C /-4~140°F

6.2 Temperature parameter

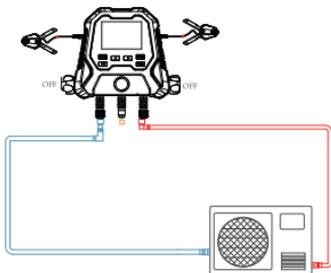
Characteristics	Parameters
Measurement range	-40~150°C
Accuracy	±0.5°C (-40~130°C) 、 ±1°C (130~150°C)
Resolution	0.1°C
Units	°C、°F
Interface	PS/2

7 Quick Operation Guide

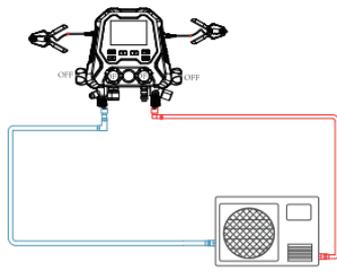
7.1 Measuring Pressure and Temperature

1. Press the power button  to turn the device on and enter the main interface for PT.
2. Hold the  +  button for 3 seconds to unlock the refrigerant selection.
3. Refrigerant area blinks, short press  or  select the desired refrigerant.
4. Close all valves and connect the high and low-pressure sides of the product to the system being tested.
5. Start the system being tested to real-time monitor the system's pressure and saturation temperature among other parameters.

Note: Ensure proper connection according to the diagram shown below.



MS-810 series



MS-870 series

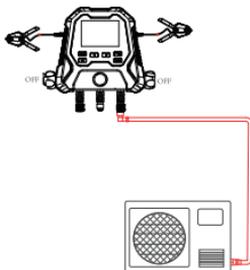
7.2 Hold Pressure Measurement

1. Turn on the device and press the button  to enter the HOLD pressure interface.

2. Charge the system being tested with an appropriate amount of nitrogen. When the pressure reaches the target value, close the high-pressure side valve.

3. Press the button  to start the hold pressure test.

Note: Ensure the connection is made correctly according to the diagram shown below.



7.3 Refrigerant Charging

1. Turn on the device and enter the PT interface.

2. Connect the refrigerant tank to the middle interface.

9.Family Products



Scan the QR code to download APP

