Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

VEVOR WZ--J401

VEVOR 4-Way AC Manifold Gauge Set (Model WZ--J401)

Instruction Manual

1. Product Overview

The VEVOR 4-Way AC Manifold Gauge Set (Model WZ--J401) is a professional tool designed for refrigerant charging, evacuation, and diagnostic testing in automotive, household, and commercial air conditioning systems. This set is compatible with R134A, R22, R12, and R410A refrigerants, offering versatility for various applications. It features durable construction, precise gauges, and reinforced hoses for reliable performance.



Figure 1: VEVOR 4-Way AC Manifold Gauge Set in use on an automotive AC system.

This manifold gauge set provides accurate pressure readings and includes all necessary components for efficient refrigerant handling. Its robust design ensures longevity and resistance to operational wear.

2. Package Contents

Verify that all items listed below are present in your package:

- 1 x 4-Valve Gauge Manifold
- 2 x Quick Couplers (High and Low side)
- 3 x Adapters (1/4sae to 1/2ACME, 1/4 to 5/16sae, 5/16 to 1/4sae)
- 4 x 5 ft (1.5 m) Reinforced Hoses (Red, Yellow, Blue, Black)
- 1 x Valve Core Wrench
- 1 x Screwdriver
- 1 x Hook for hanging the manifold
- 4 x Gaskets

- 2 x O-rings
- 2 x Sealing Gaskets
- 3 x Fittings
- 1 x User Manual

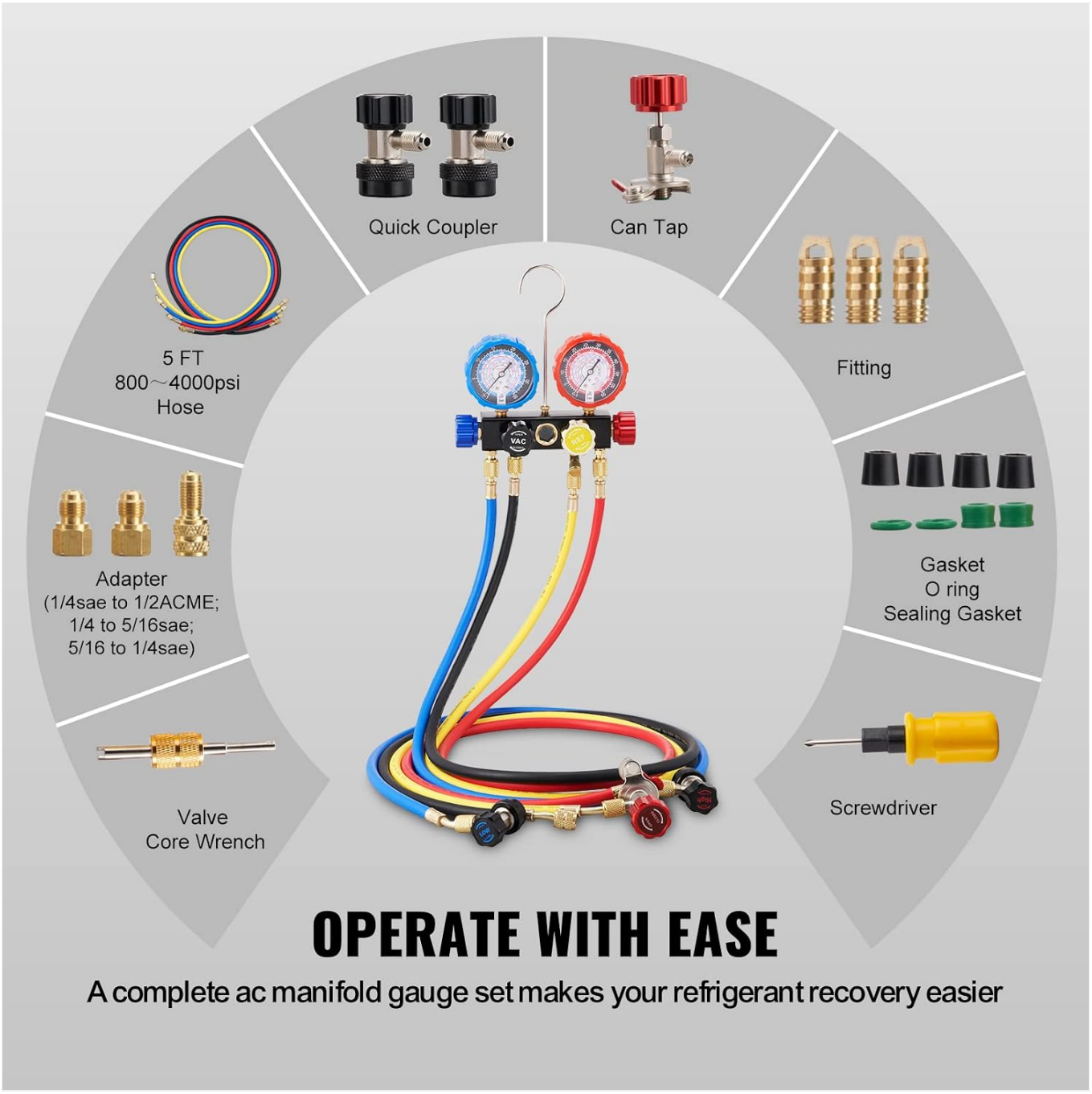


Figure 2: Complete contents of the VEVOR 4-Way AC Manifold Gauge Set.

3. Specifications

Feature	Specification
Applicable Refrigerants	R134A, R12, R22, R410A
Low-Pressure Gauge Range	-30 to 500 psi (-2 to 35 bar)
High-Pressure Gauge Range	-30 to 800 psi (-2 to 55 bar)

Hose Working Pressure	800 psi (54.4 bar)
Hose Burst Pressure	4000 psi (272 bar)
Hose Length	5 ft (1.5 m)
Gauge Accuracy	±1.6%
Product Dimensions	12.2 x 11.8 x 3.35 inches (31 x 30 x 8.5 cm)
Item Weight	6.78 lbs (3.07 kg)



Figure 3: Detailed product specifications and dimensions.

4. Setup and Connection

Before beginning any work on an AC system, ensure you are wearing appropriate personal protective equipment, including safety glasses and gloves. Familiarize yourself with the components of the manifold gauge set.

4.1 Component Identification



Figure 4: Close-up of the manifold gauges and valves.

- **Blue Gauge:** Low-pressure side.
- **Red Gauge:** High-pressure side.
- **Blue Valve:** Controls the low-pressure side.
- **Red Valve:** Controls the high-pressure side.
- **Yellow Port (REF):** Connects to the refrigerant source.
- **Black Port (VAC):** Connects to the vacuum pump.
- **Sight Glass:** Allows visual inspection of refrigerant flow.

4.2 Hose Connections

The set includes four color-coded hoses for easy identification and proper connection:

- **Blue Hose:** Connects to the low-pressure service port of the AC system and the blue port on the manifold.
- **Red Hose:** Connects to the high-pressure service port of the AC system and the red port on the manifold.

- **Yellow Hose:** Connects to the refrigerant tank or can tap and the yellow (REF) port on the manifold.
- **Black Hose:** Connects to the vacuum pump and the black (VAC) port on the manifold.

Ensure all connections are tight to prevent leaks. Use the provided sealing gaskets and O-rings as needed.



Figure 5: Reinforced hoses with secure fittings.

5. Operating Instructions

This section outlines general procedures for using the VEVOR 4-Way AC Manifold Gauge Set. Always refer to the specific service manual for your vehicle or appliance for detailed refrigerant capacities and procedures.

5.1 System Evacuation (Vacuum)

1. Connect the blue hose to the low-pressure service port and the red hose to the high-pressure service port of the AC system.
2. Connect the black hose to the vacuum pump.
3. Ensure both the blue and red valves on the manifold are fully closed.

4. Open the black (VAC) port valve on the manifold.
5. Start the vacuum pump.
6. Slowly open both the blue (low-pressure) and red (high-pressure) valves on the manifold to allow the vacuum pump to evacuate the system.
7. Monitor the low-pressure gauge. It should drop into the vacuum range (below 0 psi).
8. Allow the vacuum pump to run for at least 30-60 minutes (or as specified by the system manufacturer) to ensure complete moisture removal.
9. Once evacuation is complete, close both the blue and red valves on the manifold, then turn off the vacuum pump.
10. Observe the low-pressure gauge for at least 15-30 minutes. If the needle rises, it indicates a leak in the system.

5.2 Refrigerant Charging

1. After successful evacuation and leak check, ensure both blue and red valves on the manifold are closed.
2. Connect the yellow hose to the refrigerant tank or can tap.
3. Purge the yellow hose: Slightly open the yellow (REF) port valve on the manifold for a second or two to release any air from the hose, then close it.
4. Start the vehicle engine and turn on the AC system to maximum cooling with the fan on high.
5. Slowly open the blue (low-pressure) valve on the manifold.
6. Invert the refrigerant can (if charging liquid) or keep it upright (if charging vapor) as per refrigerant type and system requirements.
7. Monitor the low-pressure gauge and the sight glass. Add refrigerant in small increments, allowing the system to stabilize between additions.
8. Once the desired low-side pressure is reached (refer to system specifications), close the blue valve on the manifold.
9. Turn off the vehicle engine and AC system.
10. Disconnect the hoses from the service ports, ensuring minimal refrigerant release.



Figure 6: Using the manifold gauge set on an AC unit.

▶ **Watch video online**
VEVOR 4 Way AC Gauge

Video 1: A short demonstration of the VEVOR 4-Way AC Gauge Set components and basic connection for AC system work.

▶ **Watch video online**
VEVOR 4-WAY AC Gauge Set

Video 2: An overview of the VEVOR 4-Way AC Gauge Set, highlighting its features and application.

6. Maintenance

Proper maintenance ensures the longevity and accuracy of your VEVOR AC Manifold Gauge Set.

- **Cleaning:** After each use, wipe down the manifold, hoses, and couplers with a clean, dry cloth to remove any refrigerant oil or debris.

- **Storage:** Store the gauge set in its protective carrying case in a clean, dry environment away from direct sunlight and extreme temperatures.
- **Hose Inspection:** Regularly inspect hoses for cracks, cuts, or signs of wear. Replace damaged hoses immediately to prevent leaks and ensure safety.
- **Gauge Calibration:** The gauges are factory calibrated. If you suspect inaccuracy, they can be recalibrated using the calibration screws, typically by setting the pointer to zero when disconnected from any pressure source.
- **O-ring and Gasket Replacement:** Periodically check the O-rings and sealing gaskets on the hose fittings and couplers. Replace them if they appear worn or damaged to maintain a tight seal.

7. Troubleshooting

This section provides solutions to common issues encountered during the use of the AC manifold gauge set.

- **Gauge Not Reading Pressure:**
  - Ensure all valves on the manifold are open to the system.
  - Check hose connections for tightness.
  - Verify that the service ports on the AC system are properly engaged.
- **System Not Holding Vacuum (Leak Indication):**
  - Inspect all hose connections, couplers, and adapters for proper sealing. Tighten any loose connections.
  - Check the O-rings and gaskets for damage and replace if necessary.
  - A persistent leak after checking connections indicates a leak within the AC system itself, requiring further diagnosis.
- **Slow Refrigerant Charging:**
  - Ensure the refrigerant tank valve is fully open.
  - Verify that the yellow (REF) port valve on the manifold is open.
  - Check for blockages in the yellow hose or can tap.
  - Ensure the AC system is running with the engine on and AC set to max cool.
- **Inaccurate Gauge Readings:**
  - Check if the gauge pointers are at zero when disconnected from any pressure. If not, use the calibration screw to adjust.
  - Ensure the gauges are not damaged or impacted.

8. Safety Information

Working with refrigerants and AC systems can be hazardous. Always adhere to the following safety guidelines:

- Always wear appropriate personal protective equipment (PPE), including safety glasses and chemical-resistant gloves, to protect against refrigerant exposure.
- Work in a well-ventilated area to prevent the accumulation of refrigerant vapors.
- Never expose refrigerant containers to direct sunlight or temperatures above 125°F (52°C).
- Do not overcharge the AC system. Refer to the manufacturer's specifications for correct refrigerant amounts.
- Refrigerants can cause frostbite upon contact with skin or eyes. In case of contact, flush the affected area with lukewarm water for at least 15 minutes and seek medical attention.
- Dispose of recovered refrigerants and empty cans according to local environmental regulations.
- Keep children and pets away from the work area.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

https://manuals.plus/asin/B0C4F7WYXN

More documents and user manuals: **https://manuals.plus/**