

## Yellow Jacket 42006

# Yellow Jacket 42006 Series 41 Manifold Instruction Manual

Model: 42006 | For R-22, R-134A, R-404A Refrigerants

## 1. INTRODUCTION

This manual provides essential instructions for the safe and effective operation, setup, maintenance, and troubleshooting of your Yellow Jacket 42006 Series 41 Manifold. Please read this manual thoroughly before using the product to ensure proper function and to prevent damage or injury.

The Yellow Jacket 42006 Series 41 Manifold is designed for testing and charging refrigeration and air conditioning systems using R-22, R-134A, and R-404A refrigerants. It features durable construction and precise gauges for accurate readings.

## 2. SAFETY INFORMATION

**WARNING: Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when working with refrigerants and refrigeration systems.**

- Ensure all connections are tight before pressurizing the system.
- Do not exceed the maximum working pressure ratings of the manifold or hoses.
- Handle refrigerants in a well-ventilated area.
- Refer to refrigerant manufacturer safety data sheets (SDS) for specific handling precautions.
- Keep the manifold and hoses clean and free from debris.
- Do not use the manifold if any components are damaged or show signs of wear.

## 3. PACKAGE CONTENTS

Verify that all items are present in your package:

- Yellow Jacket Series 41 Manifold with 3-1/8" Gauges (R-22/134A/404A)
- Color-coded 60" PLUS II Hoses (Red, Yellow, Blue) (*Note: Some models include hoses, verify your specific purchase.*)



**Figure 1:** Yellow Jacket 42006 Series 41 Manifold with attached color-coded hoses. The manifold body is brass, featuring two large 3-1/8 inch gauges (blue for low pressure, red for high pressure) and three ports for hose connections. The hoses are yellow, red, and blue, coiled around the manifold, with brass fittings at their ends.

## 4. PRODUCT FEATURES

The Yellow Jacket 42006 Series 41 Manifold offers the following key features:

- **3-1/8" Color-Coded Gauges:** Large, easy-to-read gauges with 1% accuracy (Class 1) for precise readings. Color-coded for R-22, R-134A, and R-404A refrigerants.
- **Forged Brass Body:** Provides enhanced durability and longevity.

- **Full Porting:** Maximizes capacity and refrigerant flow.
- **Sliding Double "O" Ring Pistons:** Designed to reduce wear and extend service life.
- **Long Life Nylon Seats:** Ensures reliable sealing and prevents leaks.
- **Hose Assemblies (Optional/Included with some models):** UL recognized for 4000 psi (275 bar) burst and 800 psi (55 bar) working pressure.

## 5. SETUP

---

Before initial use, inspect all components for any signs of damage. Ensure all connections are clean and free of debris.

### 5.1 Connecting Hoses

1. Identify the three ports on the manifold:
  - **Low Side (Blue):** Typically on the left, connects to the low-pressure side of the system.
  - **High Side (Red):** Typically on the right, connects to the high-pressure side of the system.
  - **Service/Vacuum (Yellow):** Center port, connects to the vacuum pump, refrigerant tank, or recovery unit.
2. Connect the blue hose to the low-side port on the manifold.
3. Connect the red hose to the high-side port on the manifold.
4. Connect the yellow hose to the service/vacuum port on the manifold.
5. Hand-tighten all connections, then use a wrench to ensure a secure, leak-free seal. Do not overtighten.

### 5.2 Gauge Calibration Check

Before each use, ensure the gauge needles rest at zero when the manifold is not connected to a pressurized system. If a gauge does not read zero, it may require calibration or service. Refer to the maintenance section for more details.

## 6. OPERATING INSTRUCTIONS

---

This section outlines general procedures for using the manifold. Specific procedures may vary based on the task (e.g., vacuuming, charging, testing).

### 6.1 Connecting to a System

1. Ensure both manifold valves are closed (turned clockwise until snug).
2. Connect the free end of the blue hose to the low-pressure service port of the refrigeration system.
3. Connect the free end of the red hose to the high-pressure service port of the refrigeration system.
4. Connect the free end of the yellow hose to your vacuum pump, refrigerant tank, or recovery unit, depending on the task.
5. Hand-tighten all connections, then use a wrench to ensure a secure seal.

### 6.2 Reading Gauges

The manifold features two gauges:

- **Blue Gauge (Low Pressure):** Displays suction pressure. Scales are provided for R-22, R-134A, and R-404A.
- **Red Gauge (High Pressure):** Displays discharge pressure. Scales are provided for R-22, R-134A, and R-404A.

Read the pressure value corresponding to the refrigerant type being used on the appropriate scale.

### 6.3 Vacuuming a System

1. Connect the manifold to the system and vacuum pump as described in Section 6.1.

2. Open both the low-side and high-side manifold valves (turn counter-clockwise).
3. Start the vacuum pump.
4. Monitor the low-side gauge. Continue vacuuming until the desired vacuum level is achieved (typically indicated by a deep vacuum gauge, not the manifold gauge).
5. Once vacuum is achieved, close both manifold valves and turn off the vacuum pump.
6. Observe the low-side gauge for any rise in pressure, which would indicate a leak.

## 6.4 Charging a System

1. Ensure the system is under vacuum and leak-free.
2. Connect the yellow hose to the refrigerant tank.
3. Purge the yellow hose by slightly opening the refrigerant tank valve and then briefly loosening the yellow hose connection at the manifold to release any air, then retighten.
4. Open the refrigerant tank valve.
5. Slowly open the low-side manifold valve to allow refrigerant to enter the system. Monitor the low-side gauge.
6. Charge the system according to the manufacturer's specifications. Close the low-side valve when the desired charge is reached.
7. Close the refrigerant tank valve.
8. Disconnect hoses carefully, ensuring minimal refrigerant release.

## 7. MAINTENANCE

---

### 7.1 Cleaning

Wipe down the manifold and hoses with a clean, damp cloth after each use. Avoid using harsh chemicals or solvents that could damage the gauges or hose material.

### 7.2 Storage

Store the manifold in a clean, dry place, away from direct sunlight and extreme temperatures. Keep the hoses coiled neatly to prevent kinking or damage. Use the integrated hook for convenient storage.

### 7.3 Gauge Calibration

If a gauge consistently reads off-zero when unpressurized, it may require recalibration or replacement. Yellow Jacket gauges are factory calibrated. For significant discrepancies, contact a qualified service technician or Yellow Jacket customer support.

### 7.4 O-Ring and Seat Replacement

Periodically inspect the O-rings and valve seats for wear or damage. Worn components can lead to leaks and inaccurate readings. Replacement kits are available from Yellow Jacket distributors.

## 8. TROUBLESHOOTING

---

Problem	Possible Cause	Solution
Gauge reads incorrectly (not zero when unpressurized)	Gauge out of calibration or damaged.	Contact Yellow Jacket support for service or replacement.
Refrigerant leaks from connections	Loose connections, worn O-rings, or damaged hose fittings.	Tighten connections. Inspect and replace O-rings or hoses if damaged.

Problem	Possible Cause	Solution
Slow or restricted flow	Kinked hose, debris in manifold/hoses, or partially closed valve.	Check hoses for kinks. Inspect for debris. Ensure valves are fully open when required.

## 9. SPECIFICATIONS

- **Model:** 42006
- **Gauge Size:** 3-1/8 inches
- **Refrigerant Compatibility:** R-22, R-134A, R-404A
- **Gauge Accuracy:** 1% (Class 1)
- **Manifold Body Material:** Forged Brass
- **Hose Burst Pressure:** 4000 psi (275 bar)
- **Hose Working Pressure:** 800 psi (55 bar)
- **Item Dimensions (L x W x H):** 13 x 12.5 x 4.25 inches
- **Item Weight:** 0.01 Ounces *(Note: This weight likely refers to the manifold body only, without hoses)*
- **UPC:** 686800420066


## 10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Yellow Jacket customer service or visit their official website. Keep your purchase receipt as proof of purchase.

**Manufacturer:** Fotronic Corporation

**Website:** [www.yellowjacket.com](http://www.yellowjacket.com) *(This is a placeholder link, verify the actual manufacturer website)*

### Related Documents - 42006

	<p><a href="#">Yellow Jacket RecoverXLT and RecoverX Refrigerant Recovery Machines</a></p> <p>Comprehensive guide to Yellow Jacket's RecoverXLT and RecoverX refrigerant recovery machines, detailing features, specifications, operation, and comparison charts for HVAC/R professionals.</p>
---	--





### [Yellow Jacket HVAC/R Charging Systems & Diagnostic Tools Catalog](#)

This catalog showcases Yellow Jacket's comprehensive range of HVAC/R charging systems and diagnostic tools, including the YJACK™ Series wireless sensors, P51 TITAN® Digital Manifolds, ManTooth® Wireless Gauges, and various BRUTE II® and Series 41 manifolds. The products are designed for accurate measurements, efficient system analysis, and enhanced user experience in HVAC/R applications.



### [Yellow Jacket TitanMax Digital Manifold - Features and Specifications](#)

Explore the Yellow Jacket TitanMax Digital Manifold, a 4-valve system offering fast and accurate measurements for refrigeration and A/C systems. Features include a high-resolution touchscreen, wireless connectivity via Bluetooth to YJACK VIEW® and measureQuick® apps, on-board data logging, and compatibility with A2L refrigerants.



### [YELLOW JACKET TITANMAX™ User Manual](#)

Comprehensive user manual for the YELLOW JACKET TITANMAX™ digital manifold, detailing its features, operation, settings, maintenance, and troubleshooting for HVAC professionals. Includes model numbers P/N 40880, 40881, 40885, 40887.



### [Yellow Jacket TITANMAX™ Digital Manifold Quick Start Guide](#)

Quick start guide for the Yellow Jacket TITANMAX™ Digital Manifold, covering setup, connections, main features, and settings for HVAC technicians. Learn how to power on, connect probes, navigate menus, and configure settings for pressure, temperature, vacuum, and psychrometric measurements.



### [Yellow Jacket Omni Digital Vacuum Gauge Operating Instructions](#)

Comprehensive guide to operating the Yellow Jacket Omni Digital Vacuum Gauge (model 69020), detailing setup, button functions, display readings, and setting adjustments for accurate vacuum measurement.