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› CCLIFE Car Air Conditioning Recharge Manifold Gauge Kit User Manual

CCLIFE 1443

CCLIFE Car Air Conditioning Recharge Manifold Gauge Kit User Manual

Model: 1443

INTRODUCTION

This user manual provides detailed instructions for the safe and effective operation, maintenance, and troubleshooting of your CCLIFE Car Air Conditioning Recharge Manifold Gauge Kit. This kit is designed for adding R134a and R12 refrigerants to vehicle air conditioning systems.

Please read this manual thoroughly before first use and keep it for future reference.

SAFETY INFORMATION

Always observe the following safety precautions when using the manifold gauge kit:

- Wear appropriate personal protective equipment, including safety glasses and gloves, when handling refrigerants.
- Work in a well-ventilated area.
- Do not expose refrigerant to open flames or high temperatures.
- Ensure all connections are secure before applying pressure.
- Refer to your vehicle's service manual for specific AC system procedures and refrigerant capacities.
- Refrigerant should be handled by qualified personnel. Improper handling can cause injury or environmental damage.
- An excess of gas in an AC circuit can lead to reduced cooling efficiency. Monitor pressure gauges carefully.
- Used or excess gas must be recovered using a vacuum pump designed for refrigerant recovery, not released into the atmosphere.

PRODUCT COMPONENTS

The CCLIFE Car Air Conditioning Recharge Manifold Gauge Kit includes the following components:

- Manifold Gauge Set (Low and High Pressure Gauges)
- Three Color-Coded Hoses (Red, Blue, Yellow) - 150 cm length each

- Quick Couplers (Low and High Pressure)
- Carrying Case

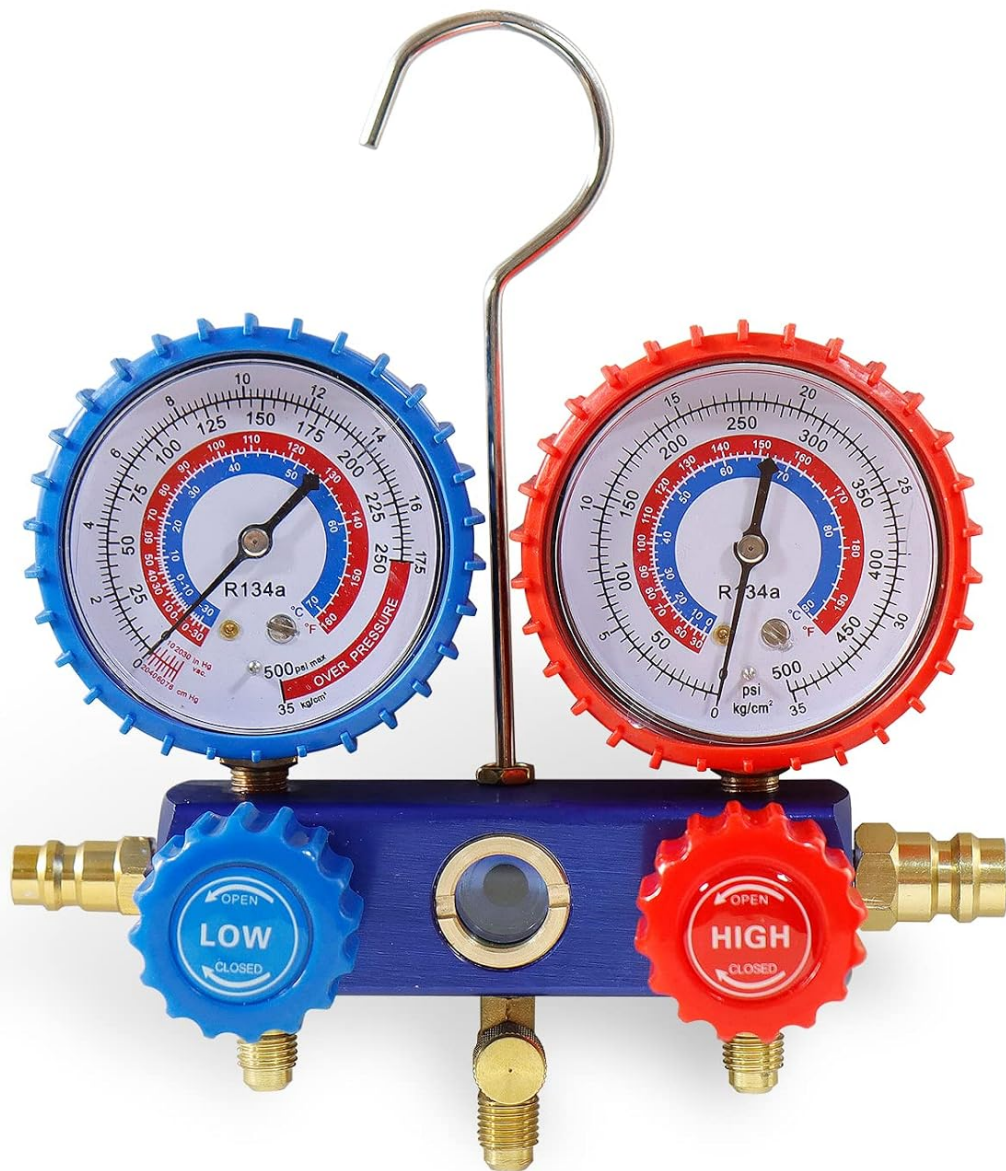
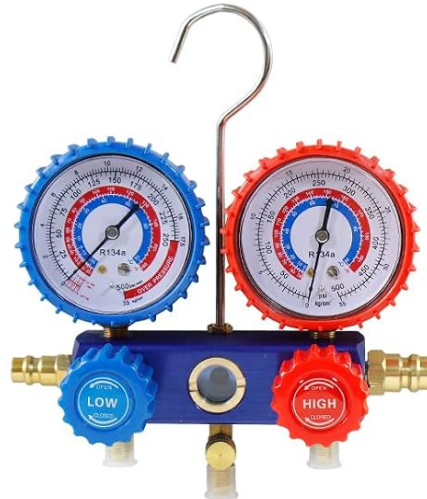


Image: The main manifold gauge set, featuring blue (low pressure) and red (high pressure) gauges, with a hanging hook at the top.

DIAGNOSTIC MANIFOLD GAUGE SET

1



2



3



1: 3 Valve Gauge

2: 3 Color Hose

3: Quick Coupler

Image: A diagram illustrating the three main components: (1) the 3-valve gauge, (2) the three color-coded hoses (red, blue, yellow), and (3) the quick couplers.



Image: The complete CCLIFE Manifold Gauge Kit neatly organized within its blue carrying case, showing the gauges, hoses, and couplers.

SPECIFICATIONS

Feature	Detail
Model Number	1443
Material	Metal
Dimensions (L x W x H)	35 x 34 x 11 cm
Item Weight	2.4 Kilograms
Low Pressure Gauge Scale	-20 to 55°C, 0-15.5 bar (0-250 PSI)
High Pressure Gauge Scale	-10 to 88°C, 0-35 bar (0-500 PSI)

Feature	Detail
Maximum Working Pressure	500 PSI
Burst Pressure	2500 PSI
Hose Length	150 cm (each)
Connector Size	1/4" metal connector
Compatible Refrigerants	R134a, R12, R22

SETUP AND CONNECTION

Before beginning any work on your vehicle's AC system, ensure the engine is off and cool. Locate the high-pressure and low-pressure service ports on your vehicle's AC system. These are typically marked with 'H' and 'L' or different sizes.

1. **Connect Hoses to Manifold:**

- Connect the **red hose** to the **HIGH** pressure port on the manifold gauge.
- Connect the **blue hose** to the **LOW** pressure port on the manifold gauge.
- Connect the **yellow hose** (service hose) to the central service port on the manifold gauge. This hose will connect to the refrigerant can tap or vacuum pump.

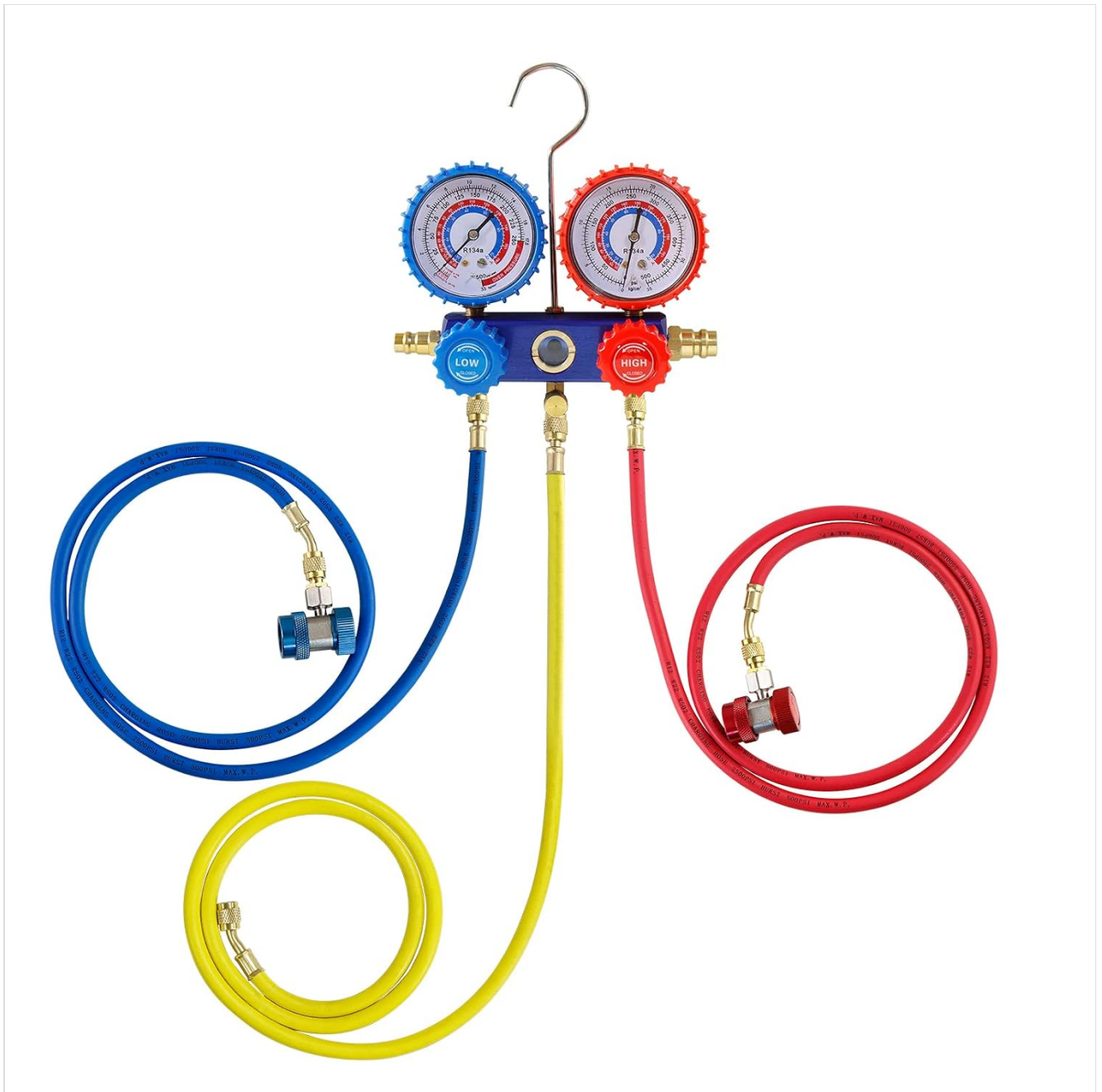


Image: The manifold gauge set with the red, blue, and yellow hoses securely connected to their respective ports.

2. **Connect Quick Couplers:** Attach the appropriate quick couplers to the ends of the red and blue hoses. The blue coupler is for the low-pressure port, and the red coupler is for the high-pressure port.
3. **Connect to Vehicle:**
 - Connect the **blue quick coupler** to the vehicle's low-pressure service port.
 - Connect the **red quick coupler** to the vehicle's high-pressure service port.



Image: The manifold gauge set with hoses and quick couplers connected to the service ports of a car's air conditioning system, located within the engine bay.



Image: A close-up view of the blue quick coupler attached to the low-pressure service port of a vehicle's air conditioning system.

OPERATING INSTRUCTIONS

This section outlines general procedures for using the manifold gauge kit. Always consult your vehicle's specific service manual for detailed instructions and refrigerant capacities.

1. Checking AC System Pressure

1. Ensure all manifold valves (LOW and HIGH) are closed.
2. Connect the manifold gauge set to the vehicle's AC service ports as described in the "Setup and Connection" section.
3. Start the vehicle engine and turn on the AC system to its maximum cooling setting with the fan on high. Allow the system to run for a few minutes to stabilize.
4. Read the pressure on both the LOW and HIGH pressure gauges. Compare these readings to the manufacturer's specifications for your vehicle.

2. Adding Refrigerant (Recharge)

Note: Refrigerant should only be added if the system pressure is low. Overcharging can damage the system.

1. Ensure the manifold gauge set is connected to the vehicle and all manifold valves are closed.
2. Connect the yellow service hose to a refrigerant can tap valve (not included).
3. Open the can tap valve to allow refrigerant into the yellow hose.
4. **Purge Air from Yellow Hose:** Briefly loosen the yellow hose connection at the manifold's central port to allow a small amount of refrigerant to escape, purging air from the hose. Retighten immediately.
5. Start the vehicle engine and turn on the AC system to maximum cooling.
6. Slowly open the **LOW** pressure valve on the manifold. The refrigerant will begin to flow into the AC system.
7. Monitor the LOW pressure gauge. Add refrigerant in small increments, allowing the system to stabilize between additions. Do not open the HIGH pressure valve during charging.
8. Once the LOW pressure gauge reaches the recommended level for your vehicle (consult service manual), close the LOW pressure valve on the manifold.
9. Close the refrigerant can tap valve.
10. Disconnect the quick couplers from the vehicle's service ports.

3. Evacuating the AC System (Requires Vacuum Pump)

Note: Evacuation is crucial for removing moisture and non-condensable gases from the AC system before recharging. This process requires a separate vacuum pump.

1. Ensure the manifold gauge set is connected to the vehicle's AC service ports.
2. Connect the yellow service hose to the inlet of a vacuum pump.
3. Open both the **LOW** and **HIGH** pressure valves on the manifold.
4. Start the vacuum pump. Allow the pump to run until both gauges read a deep vacuum (typically -29 to -30 inHg or -1 bar).
5. Continue running the vacuum pump for at least 30-60 minutes (or longer for larger systems or systems exposed to atmosphere for extended periods) to ensure complete moisture removal.
6. Close both the **LOW** and **HIGH** pressure valves on the manifold.
7. Turn off the vacuum pump.
8. Monitor the gauges for at least 15-30 minutes. If the vacuum holds steady, the system is leak-free and ready for recharging. If the vacuum rises, there is a leak that needs to be located and repaired before proceeding.

MAINTENANCE

- **Cleaning:** After each use, wipe down the manifold gauges, hoses, and couplers with a clean, dry cloth to remove any refrigerant residue or dirt.
- **Storage:** Store the kit in its original carrying case in a cool, dry place, away from direct sunlight and extreme temperatures. This protects the gauges and hoses from damage.
- **Hose Inspection:** Periodically inspect hoses for cracks, cuts, or signs of wear. Replace damaged hoses immediately to prevent refrigerant leaks.
- **Coupler Inspection:** Check quick couplers for proper sealing and operation. Replace if they show signs of wear or leakage.

- **Gauge Calibration:** While factory calibrated, if you suspect gauge inaccuracy, consult a professional for recalibration.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Gauges not reading pressure	Valves on manifold are closed; Hoses not properly connected; Vehicle AC system not running or faulty.	Ensure manifold valves are open (when appropriate); Check all hose and coupler connections; Verify vehicle AC system is operating correctly.
Refrigerant not flowing during recharge	Refrigerant can empty; Can tap valve not fully open; Manifold LOW pressure valve closed; Air in hose.	Replace refrigerant can; Ensure can tap valve is fully open; Open manifold LOW pressure valve; Purge air from yellow hose.
Vacuum not holding after evacuation	Leak in AC system; Loose hose/coupler connection; Faulty manifold or hose.	Locate and repair AC system leak; Check and tighten all connections; Inspect manifold and hoses for damage and replace if necessary.
AC system still not cooling after recharge	System overcharged or undercharged; Other AC system component failure (compressor, condenser, evaporator); Air in system.	Verify correct refrigerant charge using vehicle specifications; Consult a professional for diagnosis of other AC components; Ensure proper evacuation before recharging.

WARRANTY INFORMATION

CCLIFE products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the documentation included with your purchase or contact CCLIFE customer support. Keep your proof of purchase for warranty claims.

CUSTOMER SUPPORT

If you have any questions or require assistance with your CCLIFE Car Air Conditioning Recharge Manifold Gauge Kit, please contact CCLIFE customer support through their official website or the retailer where you purchased the product. For more information, you can visit the [CCLIFE Brand Store on Amazon](#).

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