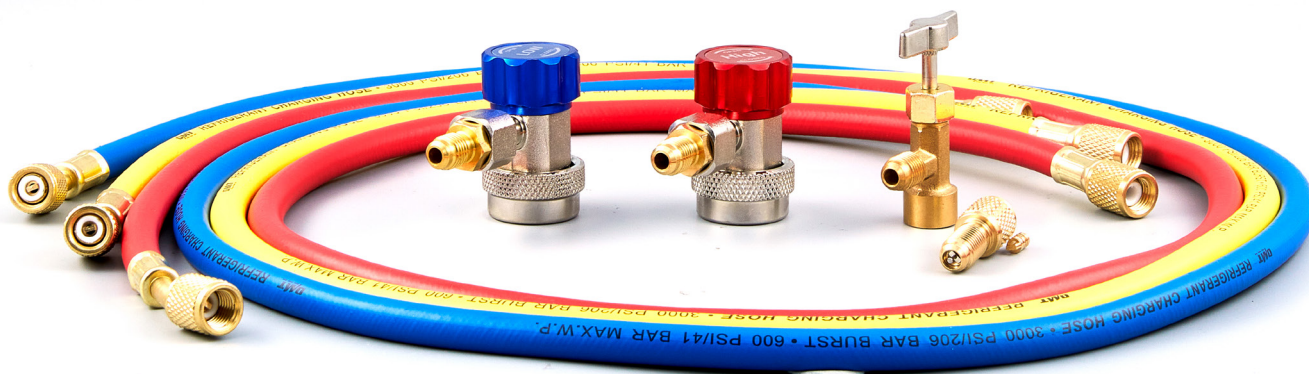
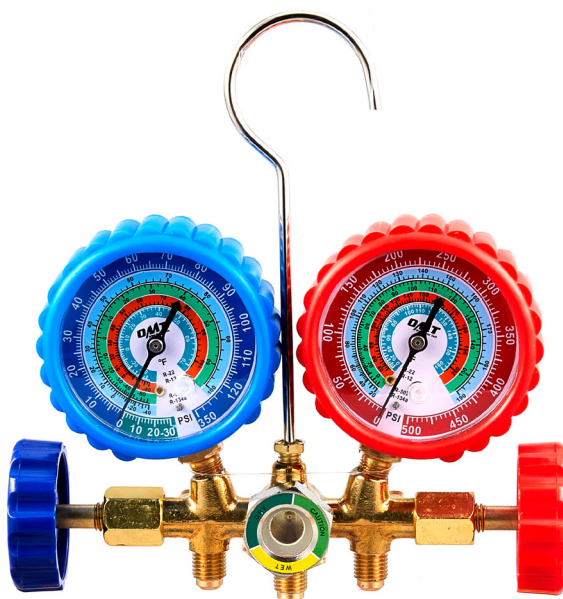


# 3-Valve Manifold Gauge Set User Manual



Read Carefully Before Use  
Keep for Future Reference

# Safety Information

## Warning!

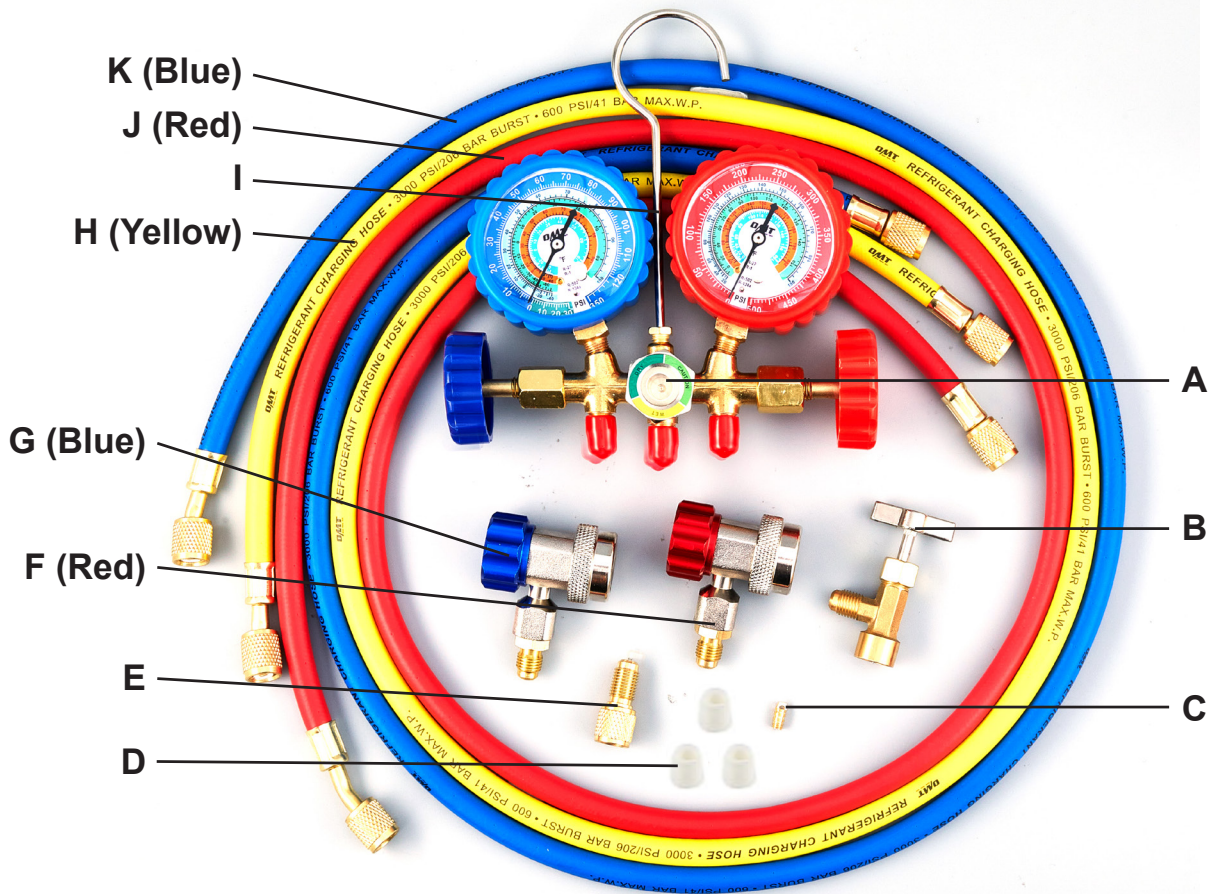
- Turn your air-conditioning system off before evacuation.
- **DO NOT** let children or persons with compromised physical or mental capabilities use this product. Do not allow people unfamiliar with this product or these instructions to operate it.
- **DO NOT** use this product if it is damaged or malfunctions. Repair or replace damaged components before further use.
- **ONLY** use with R134a, R12, R22, or R502 refrigerant.
- **ALWAYS** use with proper personal protective equipment such as a dust mask, goggles, and work gloves in a well-ventilated place, as these refrigerants can irritate your eyes, nose, throat, and skin or cause frostbite, heart arrhythmia, unconsciousness, and even death. Further, operating your vehicle in a closed environment may result in carbon monoxide poisoning and other problems. If you begin to develop symptoms such as headaches, dizziness, or nausea during use of this product, turn off your vehicle and get fresh air **IMMEDIATELY**. Do not continue work until the vehicle has been moved to an area with better ventilation.
- Use **EXTREME** caution when disconnecting the hoses after use as they may still contain some refrigerant under pressure.

# Specifications

Compatible Refrigerants		R12, R22, R134a, R502	
Low Pressure Gauge	Pressure Range	-15* to 350 psi	-1* to 24.1 Bars
	R12 Temp. Range	-40 to 100°F	-40 to 38°C
	R22 Temp. Range	-50 to 70°F	-46 to 21°C
	R134a Temp. Range	-40 to 100°F	-40 to 38°C
	R504 Temp. Range	-70 to 60°F	-57 to 16°C
High Pressure Gauge	Pressure Range	0 to 500 psi	0 to 34.5 Bars
	R12 Temp. Range	30 to 200°F	-1 to 93°C
	R22 Temp. Range	0 to 160°F	-18 to 71°C
	R134a Temp. Range	20 to 190°F	-7 to 88°C
	R504 Temp. Range	-10 to 150°F	-23 to 66°C
Hoses	Length	4 ft. 11 in.	1.5 m
	Diameter	¼ in.	6.3 mm

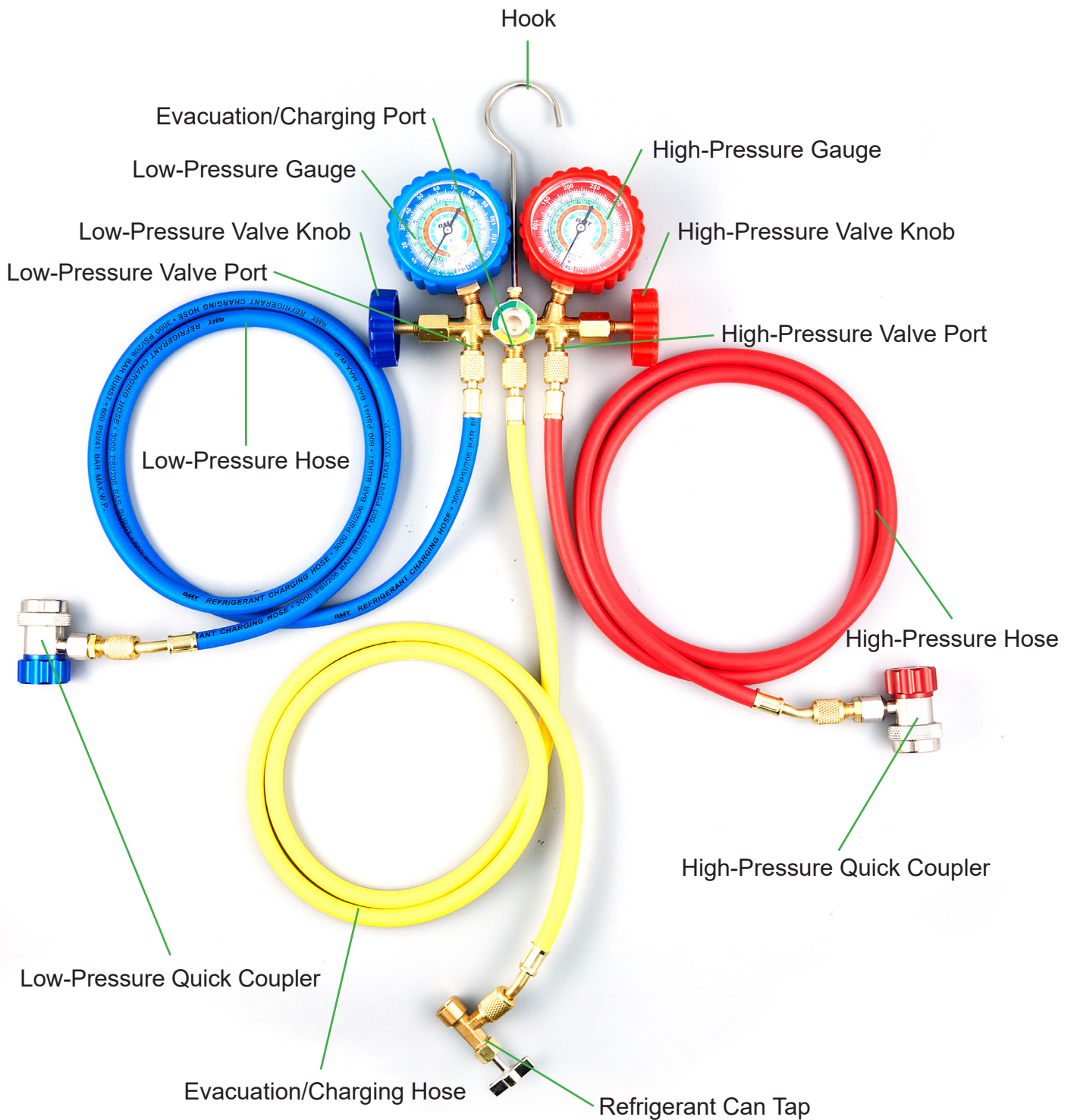
\* Note that negative readings are given in inches of mercury (inHg) roughly equal to half the equivalent value in psi or 3.4% the equivalent value in bars.

# Package List



No.	Part	Qty.
A	Gauge Set	1
B	Refrigerant Can Tap (Puncture Style)	1
C	Copper Core	1
D	Gaskets	3
E	1/2" Female to 1/4" Male Adapter	1
F	High-Pressure Quick Coupler	1
G	Low-Pressure Quick Coupler	1
H	Evacuation/Charging Hose	1
I	Hook	1
J	High-Pressure Hose	1
K	Low-Pressure Hose	1

# Product Diagram



# Installation

1. To hang the gauge set (A), insert the bottom tip of the hook (I) into the hole between the low and high-pressure gauges and screw it into place by hand.
2. Make sure the low and high-pressure valves of the gauge set are tightly closed by twisting their knobs completely clockwise. Unscrew the valve port caps by hand, connect the high and low-pressure hoses (J and K) to their matching valve ports, and screw their corresponding ends into place by hand.
3. Make sure your air-conditioning system is turned off.

For vehicular air-conditioning systems, attach the high and low-pressure quick couplers (F and G) to the low and high-pressure hoses respectively and screw them into place by hand. Pull and hold the couplers' gaskets, push them onto their corresponding service ports of your system, and release the gaskets.

For home air-conditioning systems, connect the low and high-pressure hoses to their corresponding service ports on the outside unit and use the 1/2" female to 1/4" male adapter (E) or other necessary adapters if needed.

4. To evacuate your system, unscrew the evacuation/charging port cap by hand and attach your micron gauge to the port. Connect one end of the evacuation/charging hose (H) with the micron gauge and the other end with the gas inlet of your vacuum pump. To charge your system, connect the hose directly to the port.

# Operation

## Evacuation

1. Open the low-pressure valve by twisting its knob completely counterclockwise. Turn your pump on and evacuation will begin.
2. When the micron gauge reads less than 500 microns, your air-conditioning system is fully cleared. Close the valve by twisting its knob completely clockwise, turn your pump off, and disconnect the evacuation/charging hose from the pump.

## Charging

1. Connect the outlet of the refrigerant can tap (B) to the evacuation/charging hose and its inlet to your refrigerant can. Twist the knob of the tap clockwise to open the can and then counterclockwise to allow the refrigerant to flow into the hose.
2. Start your air-conditioning system and turn it to the maximum cooling and fan speed.

3. Check for any leakage before you recharge. Open the high-pressure valve by twisting its knob completely counterclockwise. If the high-pressure gauge's pointer keeps swinging, close the valve by twisting its knob completely clockwise immediately.
4. If any loose joints or worn parts are detected, repair or replace them before further use. Once there is no leakage, close the high-pressure valve. Open the low-pressure valve by twisting its knob completely counterclockwise and the system recharging will begin.
5. When the low-pressure gauge reads 25–80 psi (2–6 bars), the system is fully charged. To stop charging the system, close the low-pressure valve by twisting its knob completely clockwise and then disconnect the tap from the refrigerant can.

## Maintenance

- Store the gauge set in a dry, clean, and safe place after use.
- **NEVER** scrape the hose or drop the gauge set on hard or rough surfaces.
- If any copper core (C) or gasket (D) preinstalled in any hose is damaged or worn, replace it using a valve core wrench (not included). If any other part of the gauge set is damaged or worn, have it repaired or replaced before further use.

## Contact Us

Thank you for choosing our products! If you have any questions or comments, contact us at [help@cs-supportpro.com](mailto:help@cs-supportpro.com) and we'll resolve your issue ASAP!

For a .pdf copy of the latest version of these instructions, use the appropriate app on your smartphone to scan the QR code to the right.

