

Operating Manual

MANIFOLD GAUGE Anti-Collision Series

VMG-2-R134a-B / VMG-2-R22-B / VMG-2-R410A-B



**ACCURATE
ANTI-COLLISION**

Dear User,

Thank you for choosing VALUE Product. For best result and right way to use it, please read this operating manual carefully before using. We suggest that you'd better keep this manual with the product or a place where you can easily find for later reference.



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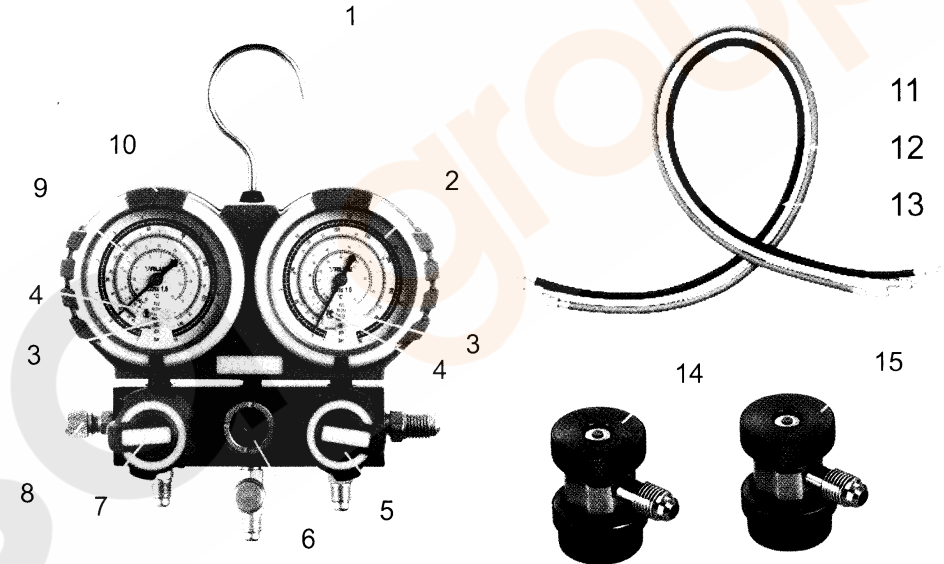
1. Safety guide

WARNING

- 1.1 The manifold has been designed especially to measure pressure in refrigeration equipment. The manifold may only be used by trained technicians.
- 1.2 The manifold must not be used for other than refrigeration applications in connection with refrigerants. The manifold is not suitable for other liquids or gases than those indicated on the gauge.
- 1.3 The manifold must not be used with pressures higher than the pressure scale indicated on the high pressure gauge of the manifold.
- 1.4 Safe goggles and gloves must be worn at all time during the use of the manifold.
- 1.5 The gauges are correctly calibrated at the factory before shipment. If calibration is required, remove the lens by first removing the bezel. Insert a straight blade screwdriver into the adjusting screw on the gauge face.
- 1.6 Cleanup the connection interfaces in order to prevent contamination entering to refrigeration system.
- 1.7 The charging hoses must be checked and clean of oil residue before each use. A visible control is also necessary to ensure that the hoses and the connection are undamaged und tight.

- 1.8 Do not connector refrigerant directly it may cause personal injury.
- 1.9 Do not vent refrigerant into the atmosphere.
- 1.10 The seals and gaskets of the manifold gauges are parts of use and must therefore be replaced from time to time. The manifold is to be tested regularly to ensure the valves are still tight.
- 1.11 Make sure to use the right pressure gauge.
- 1.12 Manifolds are high precision measuring instruments. After use, disconnect all hoses from the system and open valves and then store the manifold always in the carrying case.
- 1.13 Dispose of the manifold gauges according to the rules and regulations of the country of use.

2. Parts and specifications



NO.	Name
1	Hook
2	High pressure gauge
3	Cap
4	Zero adjusting screw
5	High pressure valve
6	Sight glass
7	Low pressure valve
8	Connection

NO.	Name
9	Low pressure gauge
10	Sheath
11	Blue hose
12	Yellow hose
13	Red hose
14	Blue quick coupling
15	Red quick coupling

3. Technical parameter

Item No.	Gauge Diameter	Gauge Class	Pressure scale	Manifold fittings	Hose	Quick coupling
VMG-2-R134a-B	68mm	1.6	0~140psi 0~400psi	1/4"	Red & Yellow & Blue: 1/4", 3×120cm	With
VMG-2-R22-B	68mm	1.6	0~140psi 0~400psi	1/4"	Red & Yellow & Blue: 1/4", 3×120cm	Without
VMG-2-R410A-B	68mm	1.6	-30~500psi 0~800psi	1/4"	Red & Blue: 5/16", 2×120cm Yellow: 1/4", 1×120cm	Without

4. Operating instruction

4.1 Pressure testing

- 4.1.1 Close both valves.
- 4.1.2 Connect blue hose to the low side of system, connect red hose to the high side of system.
- 4.1.3 Running the system, read the testing pressure indicated on manifold gauges.
- 4.1.4 After testing , turn off the system. Then disconnect the hoses from the system and open all valves, make sure do not vent refrigerant into the atmosphere.
- 4.1.5 In order to prevent venting the refrigerant into the atmosphere we can use a VALUE recovery/recycling machine to evacuate any refrigerant remaining in the hoses or manifold gauges.

4.2. Evacuation of a system

- 4.2.1 Connect blue hose to the low side of system, connect red hose to the high side of system and connect yellow hose to vacuum pump.
- 4.2.2 Open both valves.
- 4.2.3 Turn on the vacuum pump.
- 4.2.4 Check pressure on low pressure gauge for 3 to 5 minutes, if vacuum reached close both valves then turn of the vacuum pump.
- 4.2.5 Observe the pressure on the low pressure gauge if the pointer is stick to “-1” for three to five minutes, the evacuation of a system is success. If not, repeat the steps from 4.2.2 to 4.2.4.

4.3. Filling of a system after evacuation

- 4.3.1 Keep all valves closed. Disconnect the yellow hose from the vacuum pump and connect this hose to a refrigerant container.
- 4.3.2 Open valve on refrigerant container.
- 4.3.3 Open high/low pressure valves. The system is now being filled with refrigerant. Check the correct quantity of refrigerant with a charging scale for example the Value VES-50A and observe the pressure on the low pressure gauge. If the flow of the refrigerant is too slow or insufficient the compressor of the unit can be turned on (suit for R134a refrigerant) to speed up the process.

- 4.3.4 If the correct filling quantity has been reached close all valves.
- 4.3.5 After testing, turn off the system. Then disconnect the hoses from the system and open all valves and then make sure do not vent refrigerant into the atmosphere.
- 4.3.6 In order to prevent venting the refrigerant into the atmosphere we can use a VALUE recovery/recycling machine to evacuate any refrigerant remaining in the hoses or manifold gauges.
- 4.3.7 Manifold gauges are high precision measuring instruments. After use, store the manifold gauges always in the carrying case.

4. Evacuation and Filling for the Automotive air conditioner

(Only suitable for VMG-2-R134a-B)

- 4.4.1 Please connect the blue hose to the blue quick coupling, red hose to the red quick coupling, yellow hose to the vacuum pump intake port.
- 4.4.2 Quick coupling should be insert to automotive air conditioner connector's connector correspondingly, and then open the valve.
- 4.4.3 Please refer to "4.2.2 to 4.3.7" about the operating instruction.
- 4.4.4 Before remove the quick coupling, please make sure that all the values are closed.

5. Maintenance

- 5.1.1 Please do not overexert when switching valves.
- 5.1.2 Manifolds are high precision measuring instruments. After use, store manifold gauges always in the carrying case.
- 5.1.3 For overhaul and repair of the machine, ask an appointed Value distributor or contact with VALUE company directly. It will be out of warranty if the product disassembled by unauthorized individual.

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