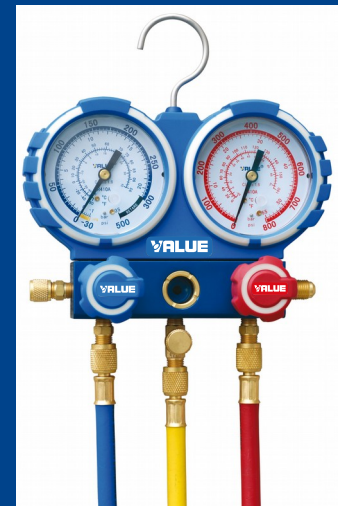


# Operating Manual

## MANIFOLD GAUGE Anti-Collision Series

### VMG-2-R410A



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

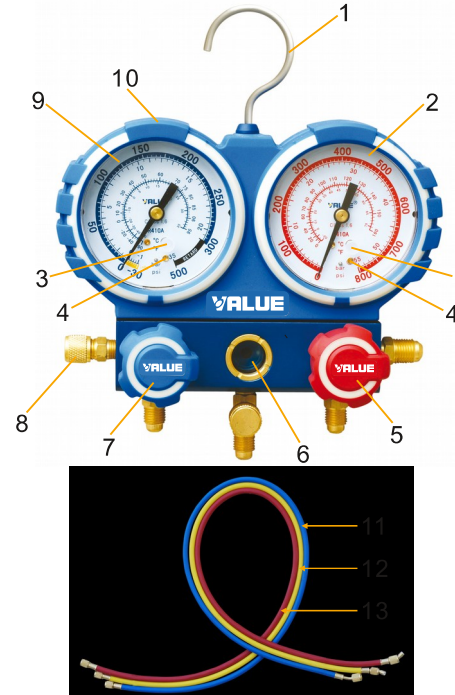
### Warning



Read this manual and become familiar with the specifications and operation of VALUE manifold gauges prior to use. The instructions of use will give you important information in regards to the operation, and maintenance of the manifold.

- 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 contact 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. NAME OF PARTS



No.	Name
1	Hook
2	High pressure gauge
3	Cap
4	Adjusting screw
5	High pressure valve
6	Sight glass
7	Low pressure valve
8	connection
9	Low pressure gauge
10	Sheath
11	Blue hose
12	Yellow hose
13	Red hose

## 3. TECHNICAL PARAMETER

### 2-way Manifold Gauge Sets

Item No.	Gauge Diameter	Gauge Class	Pressure Scale	Manifold Fittings	Hose
VMG-2-R410A	80mm	1.6	-30~500psi 0~800psi	1/4 "	Red &Blue: 5/16 " , 2×60 " (150cm) Yellow: 1/4 " , 1×60 " (150cm)

## 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 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, 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 blue/red 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 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 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.

## 5. Maintenance

- 5.1 Please do not overexert when switching valves.
- 5.2 Manifolds are high precision measuring instruments. After use, store manifold gauges always in the carrying case.
- 5.3 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.