



Empowering you to work smarter

MANIFOLD GAUGE

N2A4

N4A4H

User Manual



Failure to follow warnings could  
result in death or serious injury.

**SAVE THIS MANUAL  
FOR FUTURE REFERENCE**

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Dear User,

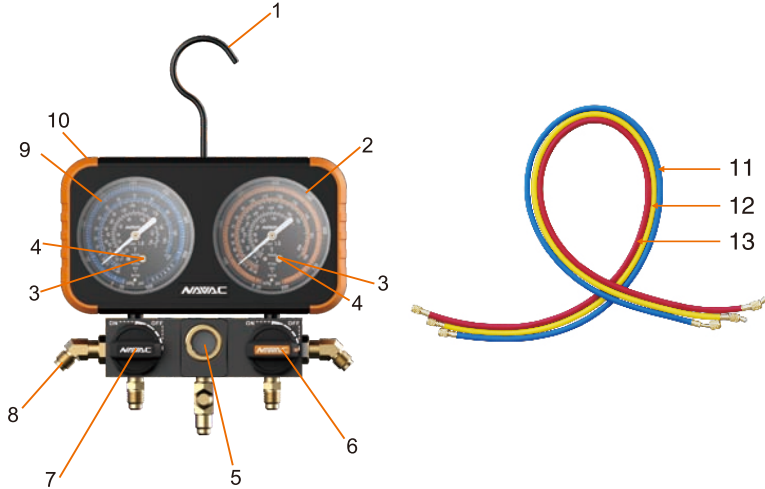
Thank you for choosing NAVAC Product. For best result and right way to use it, please read this operating manual carefully before using. We suggest that you'd better keep this manual with the product or a place where you can easily find for later reference.

### Safety Guide

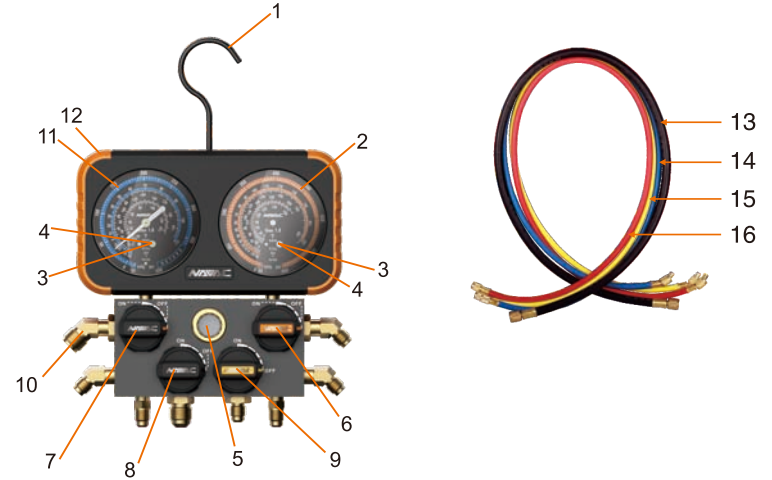
#### WARNING

- 1.1 The manifold has been designed specially to measure pressure in refrigeration equipment. The manifold may only be used by trained technicians.
- 1.2 It must not be used for other than refrigeration applications. The manifold is not suitable for liquids or gases other than those indicated on the gauge.
- 1.3 It 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 plastic plug on a sight glass and insert a small flat screwdriver into the opening to adjusting screw for calibration.
- 1.6 Clean up the connection interfaces in order to prevent contamination entering to refrigeration system.
- 1.7 The charging hoses must be checked with oil residue cleaned off before each use. A visible check is also necessary to ensure that the hoses and the connection are undamaged and tight.
- 1.8 Do not contact refrigerant directly as 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 subject to the wear and tear 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 used manifold gauges according to the local rules and regulations.

Parts and Specifications



| NO. | Name                 | NO. | Name               |
|-----|----------------------|-----|--------------------|
| 1   | Hook                 | 8   | Hose holder        |
| 2   | High pressure gauge  | 9   | Low pressure gauge |
| 3   | Cap                  | 10  | Sheath             |
| 4   | Zero adjusting screw | 11  | Blue hose          |
| 5   | Sight glass          | 12  | Yellow hose        |
| 6   | High pressure valve  | 13  | Red hose           |
| 7   | Low pressure valve   |     |                    |



| NO. | Name                 | NO. | Name                   |
|-----|----------------------|-----|------------------------|
| 1   | Hook                 | 9   | Refrigerant tank valve |
| 2   | High pressure gauge  | 10  | Hose holder            |
| 3   | Cap                  | 11  | Low pressure gauge     |
| 4   | Zero adjusting screw | 12  | Sheath                 |
| 5   | Sight glass          | 13  | Black hose             |
| 6   | High pressure valve  | 14  | Blue hose              |
| 7   | Low pressure valve   | 15  | Yellow hose            |
| 8   | Vacuum valve         | 16  | Red hose               |

### Technical parameter

|                  |     |   |  |
|------------------|-----|---|--|
| Model            |     | N2A4  | N4A4H  |
| Refrigerant Type |     | R-22, R-404A, R-134a, R-410A                        | R-22, R-404A, R-134a, R-410A   |
| Gauge Diameter   | in  | Φ3-1/8"   | Φ3-1/8"  |
| Pressure Range   | psi | -30 inHg to 800 psi;<br>-30 inHg to 500 psi         | -30 inHg to 800 psi;<br>-30 inHg to 500 psi                            |
| Hose             | in  | Red 1/4"-1/4"<br>Blue 1/4"-1/4"<br>Yellow 1/4"-1/4" | Black 3/8"-3/8"<br>Red 1/4"-1/4"<br>Blue 1/4"-1/4"<br>Yellow 1/4"-1/4" |
| Standard Length  | ft  | 3x5'  | 4x5'   |

### Operation Instruction

#### 1. Pressure testing

- 1.1 Close both valves.
- 1.2 Connect blue hose to the low side of system, connect red hose to the high side of system.
- 1.3 Running the system, read the testing pressure indicated on manifold gauges.
- 1.4 After testing, turn off the system. Then disconnect the hoses from the system and open all valves, make sure not vent refrigerant into the atmosphere.
- 1.5 In order to prevent venting the refrigerant into the atmosphere, you can use a NAVAC recovery machine to recover any refrigerant remained in the hoses or manifold gauges.

#### 2. Evacuation of a system

- 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.
- 2.2 Open both valves.
- 2.3 Turn on the vacuum pump.
- 2.4 Check pressure on low pressure gauge for 3 to 5 minutes, if desired vacuum reached, close valves, then turn off the vacuum pump.
- 2.5 Observe the pressure on the low-pressure gauge, if the pointer sticks to -30 inHG for 3 to 5 minutes, the system evacuation is completed. If not, repeat the steps from 2.2 to 2.4.

### 3. Charging of a system after evacuation

- 3.1 Keep valve closed, disconnect the yellow hose from the vacuum pump and connect this hose to a refrigerant container.
- 3.2 Open valve on the refrigerant container.
- 3.3 Open the manifold valves. The system is now being charged with refrigerant. Check the correct quantity of refrigerant with a charging scale (such as a NAVAC NRS2i01 wireless scale), and observe the pressure on the gauge. If the refrigerant flow is too slow or insufficient the system compressor can be turned on to speed up the process.
- 3.4 If the correct charging quantity has been reached, close valves.
- 3.5 After testing, turn off the system. Then disconnect the hoses from the system and open all valves while making sure not to vent refrigerant into the atmosphere.

### Maintenance

- 1.1 Do not apply excessive force when turning valves.
- 1.2 Manifolds are high precision measuring instruments. After use, store manifold gauges always in the carrying case.
- 1.3 For maintenance and repair of the manifold, contact authorized NAVAC distributors. Product warranty would be void if it is disassembled by unauthorized individuals.