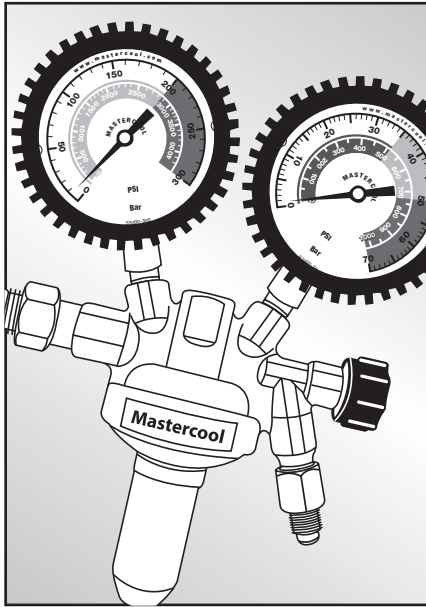




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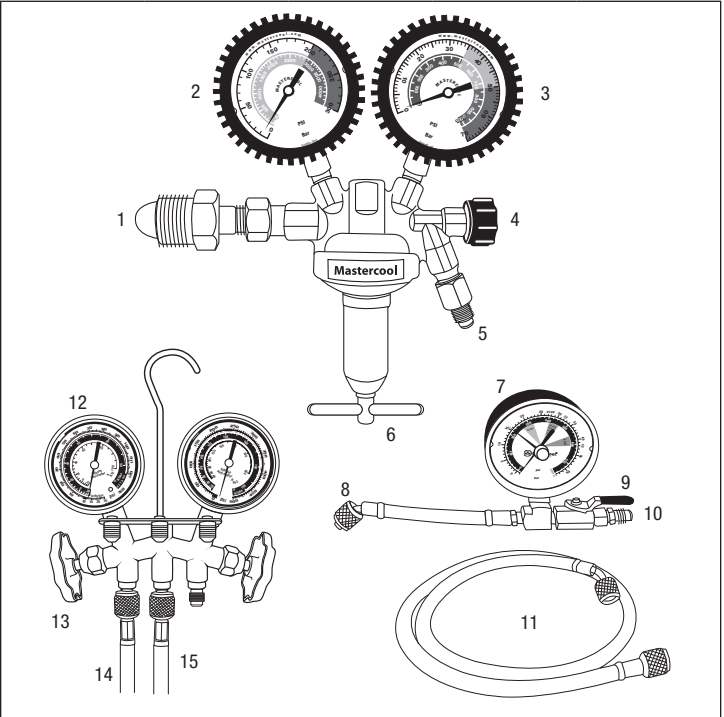
OPERATING INSTRUCTIONS

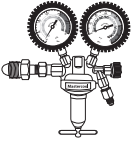
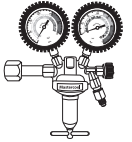
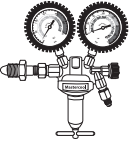
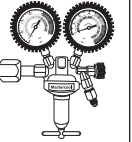
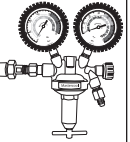
NITROGEN PRESSURE REGULATOR LEAK TESTING KIT



NITROGEN PRESSURE REGULATOR LEAK TESTING KIT

- Pressure regulation of Nitrogen (N₂)
- Pressure testing refrigeration systems
- Leak-down testing of refrigeration systems
- Purging of refrigeration systems
- Only for use on nitrogen pressure cylinders



| | | | | |
|--|--|---|---|---|
|  |  |  |  |  |
| 53001 CGA580 (US) | 53002 DIN477#6 & DIN477#10 (includes adapter to convert DIN477#6 to DIN477#10 (France/Germany)) | 53003 BS3 (England) | 53004 AS2473.2 (Australia) | 5-UNI11144 (Italy) |

| No. | Description |
|-----|---|
| 1. | Cylinder Connection |
| 2. | High Side Gauge of Nitrogen Regulator (input) |
| 3. | Low Side Gauge of Nitrogen Regulator (output) |
| 4. | Output Control Valve |
| 5. | Charging Hose Connection on Regulator |
| 6. | Pressure Regulator T Handle |
| 7. | Leak Testing Gauge Assembly |
| 8. | Connection to Refrigeration System |
| 9. | Leak Testing Ball Valve Lever |
| 10. | Charging Hose Connection on Leak Testing Assembly |
| 11. | Charging Hose |
| 12. | Charging and Testing Manifold (not included in kit) |
| 13. | Low Side Valve on Manifold |
| 14. | Low Side Hose (blue) |
| 15. | Charging Hose (yellow) |

TECHNICAL DATA:

Connection:

- Model # 53001: CGA580 (US)
- Model # 53002: DIN477#6 & DIN477#10 (includes adapter to convert DIN477#6 to DIN477#10 (France/Germany))
- Model # 53003: BS3 (England)
- Model # 53004: AS2473.2 (Australia)

Pressure Regulator:

- 100 - 4500 PSI (7 - 300 Bar) High side
- 30 – 1000 PSI (2 – 70 Bar) Adjustment range
- Integrated Shutoff Valve

Safety Relief Valve: 725 PSI (50 Bar)

Gauge Diameter: 2 5/8 (68 mm) Not including guard

WARNINGS



- Only use with nitrogen gas (N2).
- The regulator is not to be used with liquid nitrogen.
- Do not modify the regulator. Doing so could result in personal injury.
- Do not over-pressurize the regulator. This could cause leakage, part damage or personal injury due to bursting of pressure-containing parts.
- Keep the regulator clean and free of oil.
- Do not use a damaged regulator. Except for replacing the gauges, do not attempt to repair the regulator.
- Failure to follow instructions can result in personal injury and/or damage to the equipment.
- Do not install this regulator where service conditions can exceed the specifications of any applicable local, state, or federal codes and regulations.
- Wear safety glasses and gloves.

REGULATOR CONNECTION AND USE

Note: The nitrogen regulator can be used with a charging hose and leak testing gauge assembly or a charging and testing manifold.

- Make sure the cylinder connection (1) is clean and free from damage.
- Turn the T handle (6) all of the way out (counter clockwise, looking from the bottom).
- Open the output control valve (4) to release any pressure, and then close it.
- Install the nylon gasket or O-ring, if the connection requires one.
- Install the regulator onto the cylinder. Do not over tighten the nut on gasketed connections.
- Connect the yellow charging hose (11) from the regulator to the leak testing gauge assembly, making sure the ball valve connection (9) is closed.
(If using a manifold, connect the yellow charging hose (15) of the manifold to the regulator.)
- Connect the other end of the leak testing gauge assembly (8) to the system.
(If using a manifold, connect the low side hose (14) from the manifold to the system.)
- Slowly open the cylinder valve. The high side gauge (2) should read the cylinder pressure.
- Adjust the regulator pressure by turning the T handle (6) clockwise until the required pressure (based on the system's refrigerant) is shown on the low side (output) (3) pressure gauge.

NOTE: This is a non-relieving regulator. To adjust the output pressure lower, some nitrogen will have to be released from the output (e.g. with no hoses connected, turn the T handle counter-clockwise, then open the output control valve and close it. The output gauge should read a lower pressure.)

- If using the leak testing gauge assembly, turn the red needle to the required refrigerant pressure.

| Testing Range of Systems | | |
|--------------------------|---------------|-------------|
| R134a | 260 - 320 psi | 18 - 22 bar |
| R404A | 405 - 465 psi | 28 - 32 bar |
| R404C | 405 - 465 psi | 28 - 32 bar |
| R507 | 405 - 465 psi | 28 - 32 bar |
| R22 | 405 - 465 psi | 28 - 32 bar |
| R410A | 550 - 610 psi | 38 - 42 bar |

- Open the output control valve (4) and open the ball valve (9) on the leak testing gauge assembly for the nitrogen to flow into the system.
(If using a manifold, open the output control valve (4) and the low side valve (13) on the manifold.)
- Make sure the required pressure is available on both gauges. (You may need to turn the T handle (6) on the regulator to adjust to the required pressure.)
- Once the pressure is equalized (make sure the black needle is aligned with the red marker on the leak testing gauge assembly) close the ball valve connection (9).
(If using a manifold, close the low side valve (13) on the manifold making note

of the pressure when the valve is closed.)

- Close the output control valve (4) on the regulator
- Disassemble the yellow charging hose (11) from the regulator and leave the system for a period of time (time is based on the size of the system.)
- After some time, look at the gauge, if there is a leak in the system the pressure will have dropped from the original setting.

REGULATOR REMOVAL

- Turn the cylinder valve off.
- Relieve the pressure on the regulator by opening the output control valve (4). Both gauges should read zero.
- Slowly loosen the cylinder connection. There may still be some pressure between the regulator and cylinder.
- Completely remove the regulator.
- Clean and store the regulator in its box to prevent damage.