



IR100 Installation and Maintenance

MASTER PNEUMATIC-DETROIT, INC.

6701 - 18 Mile Rd | Sterling Heights, MI 48314 | Phone: (586) 254-1000 | Fax: (586) 254-6055 | Email: mp@masterpneumatic.com

JAA 05-08-08

REV MJF 03-01-13

ECN 4853

SAMPLE PRODUCT NUMBERS:

IR100-2
IR100-3
IR100-4
IR100-6

THANK YOU!

You have just purchased a quality Regulator from Master Pneumatic.

With care in its installation and maintenance, you can expect it to have a long and economical service life. Before you go any further, please take a few minutes to look over this information, then save it for future reference and for the useful service information it contains.



Installation & Operation Procedures

INSTALLATION:

1. Depressurize and lockout air pressure.
2. Upstream pipes must be free of excessive dirt and liquids.
3. Filters should be installed immediately ahead of Regulators to insure a clean supply of air.
4. Install the Regulator as near as possible to the device it is to serve.
5. Install the Regulator so that air flows from inlet to outlet as shown on the head.
6. The Regulator can be installed with Dome up, down, or any rotation.
7. The Regulator has gauge ports on both sides of the head. It is necessary to install a pressure gauge or pipe plugs into each port before operating.
8. Regulators should be installed upstream of any Lubricators in the airline.

OPERATION:

1. When adjusting pressure setting, always reset from a pressure lower than the final desired setting. For example, lowering pressure from 100 psi to 50 psi should be done by decreasing pressure to 30 psi then increasing to 50 psi.
2. To increase pressure: Pull out on Adjusting Knob, turn clockwise.
To lower pressure: Pull out on Adjusting Knob, turn counter-clockwise.
3. Push in on Adjusting Knob to lock in place.
4. The IR100 is a constant bleed regulator and will bleed 0.18-0.33 scfm.

TO CLEAN OR REPAIR:

1. Depressurize and lockout air pressure.
2. Reduce Spring load to zero by turning Adjusting Knob counter-clockwise.
3. Remove Plastic Dome by turning counter-clockwise.
4. Remove Retaining Ring by turning counter-clockwise.
5. Diaphragm Assembly can now be removed.
6. Visually inspect Diaphragm Assembly for defects. If necessary replace.
7. Remove Cap by turning counter-clockwise.
8. Valve Spring and Valve Stem Assembly can now be removed.
9. Visually inspect Valve Stem Assembly for defects. If necessary replace.
10. When re-assembling, be sure all seals are correctly located. Lubricate o-rings with Lithium grease.
Torque Cap 50-60 in-lbs. Torque Retaining Ring 45-55 ft-lbs. Torque Plastic Dome 90-100 in-lbs.
11. If the Regulator cannot be repaired by cleaning with soap and water, the parts should be replaced.

Replacement Parts and Mounting Accessories

PART NUMBER	DESCRIPTION
KA37-241	Diaphragm Assembly Kit (Rolling Diaphragm Sub-assembly & O-ring)
KA35-10BR-IR	Valve Assembly Kit (Valve Spring, Valve, Seal, Stem & O-rings)
A33-75MQ	Adjusting Screw Assembly Kit (Adjusting Screw, Spring Rest and screw)
A33-82	Panel Mount Nut & Bracket
10R-26	Panel Mount Nut
KA37-68	Gauge Port Wall Bracket
KA37-68L	Gauge Port Extended Wall Bracket



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Parts Listing

KEY	DESCRIPTION
1	Cap
2	Valve Spring
3	O-Ring
4	O-Ring
5	Valve and Seal
6	Valve Stem and O-Ring
7	Pitot Tube
8	Head
9	O-Ring
10	Gasket
11	Washer
12	Diaphragm Assembly
13	Retaining Ring
14	Spring
15	Metal Dome
16	Valve
17	Spacer
18	Spring
19	Plastic Dome
20	Adjusting Screw Assembly
21	Adjusting Knob

