Alemite, LLC
167 Roweland Drive
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Installation and Service Instructions
2FR100ALE

1/4" 7504-1, 3/8" 7506-1
1/2" 7508
Filter / Regulator

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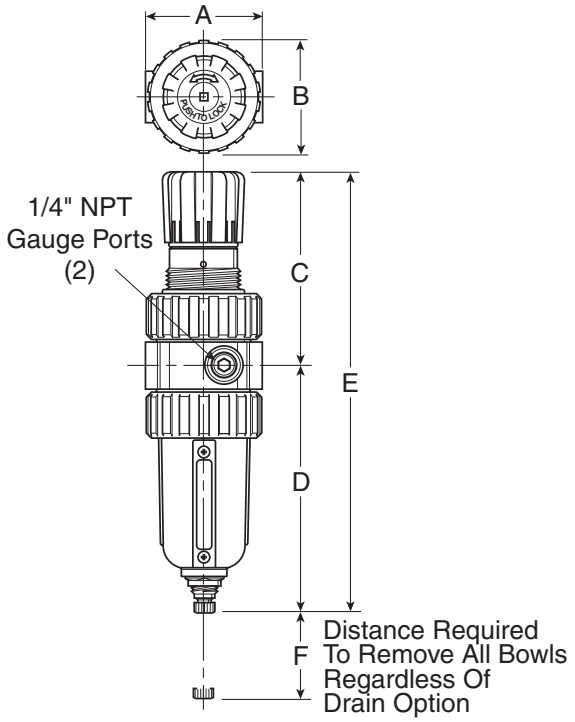
⚠ WARNING

To avoid unpredictable system behavior that can cause personal injury and property damage:

- **Disconnect electrical supply (when necessary) before installation, servicing, or conversion.**
- **Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.**
- **Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.**
- **Medium must be moisture-free if ambient temperature is below freezing.**
- **Service according to procedures listed in these instructions.**
- **Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.**
- **After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.**
- **Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.**



1/4" 7504-1, 3/8" 7506-1 Dimensions							
A	**B**	**C**	**D**	**D†**	**E**	**E†**	**F**
2.81 (71)	2.74 (70)	4.69 (119)	5.69 (145)	5.74 (146)	10.38 (264)	10.43 (265)	2.25 (57)
1/2" 7508 Dimensions							
A	**B**	**C**	**D**	**D†**	**E**	**E†**	**F**
3.24 (82)	3.25 (83)	4.79 (122)	6.97 (177)	7.00 (178)	11.76 (299)	11.79 (299)	2.75 (70)

Inches (mm)
† With Auto Float Drain

Introduction

Follow these instructions when installing, operating, or servicing the product.

Specifications

These products are intended for use in general purpose compressed air systems only.

Maximum Recommended Pressure Drop..... 10 psig (.7 bar)

Inlet Pressure..... 0 to 250 psig (0 to 17.2 bar)
Minimum Pressure with Auto Float Drain ..... 15 psig (1.0 bar)

Secondary Pressure..... 2 to 125 psig (0 to 8.6 bar)

Operating Temperature .....32°F to 175°F (0°C to 80°C)

Flow ..... 1/4"..... 46 SCFM§
3/8"..... 55 SCFM§
1/2"..... 90 SCFM§

Sump Capacity..... 1/4" & 3/8" ..... 1.75 Ounces
1/2" ..... 2.8 Ounces

Bowl Capacity ..... 1/4" & 3/8" ..... 4.4 Ounces
1/2" ..... 7.2 Ounces

Weight..... 1/4" & 3/8" ..... 1.6 lb. (0.7 kg)
1/2" ..... 2.5 lb. (1.1 kg)

§ SCFM = Standard cubic feet per minute at 90 PSIG (6.2 bar inlet) and 10 PSIG (0.7 bar) pressure drop.

Installation

1. The Filter / Regulator should be installed with reasonable accessibility for service whenever possible – repair service kits are available. Keep pipe or tubing lengths to a minimum with inside clean and free of dirt and chips. Pipe joint compound should be used sparingly and applied only to the male pipe – never into the female port. Do not use PTFE tape to seal pipe joints – pieces have a tendency to break off and lodge inside the unit, possibly causing malfunction. Also, new pipe or hose should be installed between the Filter / Regulator and equipment being protected.
2. The upstream pipe work must be clear of accumulated dirt and liquids.
3. Select a Filter / Regulator location as close as possible to the equipment being protected.
4. Install Filter / Regulator so that air flows in the direction of arrow on body.
5. Install Filter / Regulator vertically with the bowl drain mechanism at the bottom. Free moisture will thus drain into the sump ("quiet zone") at the bottom of the bowl.
6. Gauge ports are located on both sides of the filter/regulator body for your convenience. It is necessary to install a gauge or socket pipe plugs into each port during installation.

⚠ WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

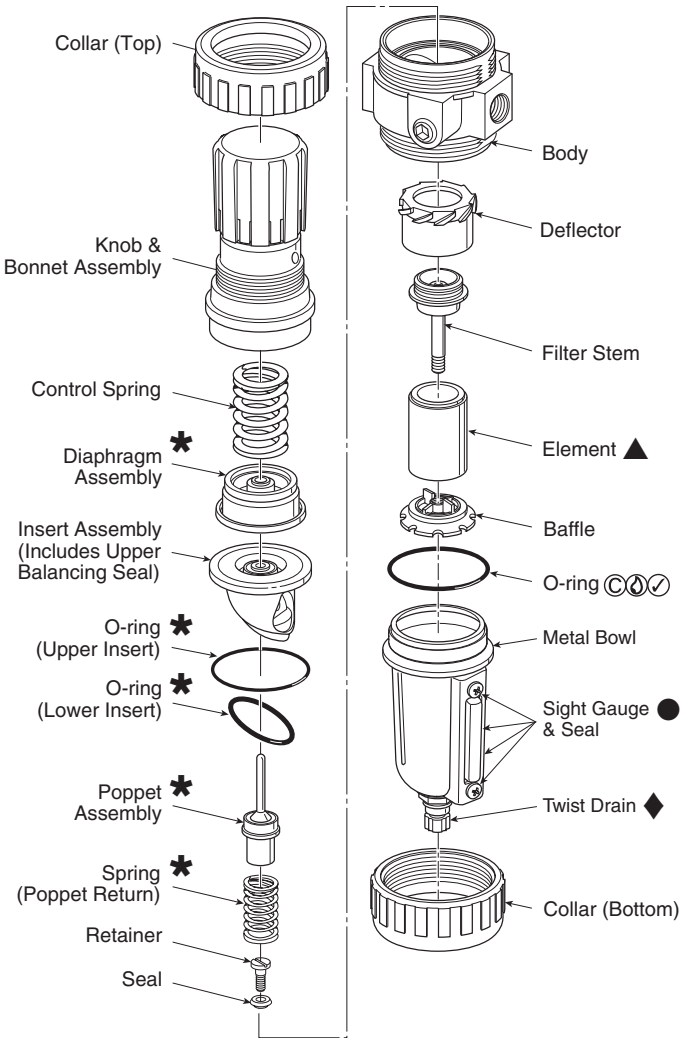
The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

Operation

1. Both free moisture and solids are removed automatically by the filter.
2. Manual drain filters must be drained regularly before the separated moisture reaches the bottom of the baffle or end cap.
3. The filter element should be removed and replaced when pressure differential across the filter is 10 PSIG (69 kPa).
4. Before turning on the air supply, turn the knob counterclockwise until compression is released from the pressure control spring. Then turn knob clockwise and adjust regulator to desired downstream pressure. This permits pressure to build up slowly in the downstream line.
5. To decrease regulated pressure settings, always reset from a pressure lower than the final setting required. Example, lowering the secondary pressure from 80 to 60 PSIG (550 to 410 kPa) is best accomplished by dropping the secondary pressure to 50 PSIG (350 kPa), then adjusting upward to 60 PSIG (410 kPa).
6. When desired secondary pressure settings have been reached, push the knob down to lock this pressure setting.

Service

⚠ **Caution: Disconnect or shut off air supply and exhaust the pressure before servicing unit.**



Note: Grease packets are supplied with kits for lubrication of seals. Use only mineral based grease or oils. Do not use synthetic oils such as esters. Do not use silicones.

Note: After servicing unit, turn on air supply and adjust regulator to the desired downstream pressure. Check unit for leaks. If leakage occurs, do not operate - conduct repairs and retest.

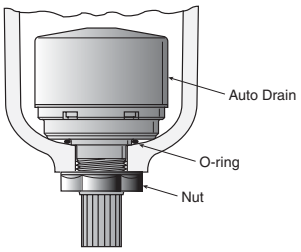
Servicing Filter Element -

1. Unscrew the bottom threaded collar and remove bowl.
2. Unscrew the baffle and then remove element.
3. Clean all internal parts and bowl before reassembling. IMPORTANT: The Filter / Regulator will not operate properly if the deflector is not installed properly. The deflector must be installed between the filter stem and the filter body.
4. Install new element.
5. Attach baffle and finger tighten firmly.
6. Replace bowl seal. Lightly lubricate new seal to assist with retaining it in position.
7. Install bowl into body and tighten collar; hand tight, plus 1/4 turn.

Servicing Regulator -

1. Disengage the adjusting knob by pulling upward. Turn adjusting knob counterclockwise until the compression is released from the pressure control spring.
2. Remove the bonnet and bowl assemblies by unscrewing the two threaded collars.
3. Remove diaphragm assembly from bonnet assembly.
4. Remove filter stem, filter element, poppet assembly, poppet return spring, (seat) insert and its o-rings.
5. Clean and carefully inspect parts for wear or damage. If replacement is necessary, use parts from service kits. Clean bowl.
6. Lubricate o-ring and vee packing seals with grease found in service kits.
7. Install poppet return spring, poppet assembly, (seat) insert and its o-rings, and filter stem. IMPORTANT: The Filter / Regulator will not operate properly if the deflector is not installed properly. The deflector must be installed between the filter stem and filter body.
8. Install filter element and firmly tighten baffle onto the filter stem.
9. Install diaphragm assembly into bonnet assembly. Assemble bonnet assembly to body and tighten threaded collar from 48 to 52 in-lbs (5.4 to 5.9 Nm).
10. Install bowl into body and tighten collar; hand tight, plus 1/4 turn.

Optional Auto Drain 343303



Repair Service Kits

Description	7504-1, 7506-1 Part Number	7508 Part Number	Kit Symbol
40 Micron Element Kit	393339-80	393339-86	▲
Sight Gauge Kit	393339-81	393339-81	●
Twist Drain Kit	393339-82	393339-82	◆
Relieving Regulator Repair Kit	393339-85	393339-87	✱