



350 Integral Filter/Regulator Installation and Maintenance

MASTER PNEUMATIC, INC.

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

SAMPLE PRODUCT NUMBERS:

CFR350-2, -3, -4
CF5AR350-2, -3, -4
BCFR350-2, -3, -4
BCF5AR350-2, -3, -4
BCF6AR350-2, -3, -4

THANK YOU!

You have just purchased a quality Integral Filter/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



NOTE: Read Warning Stuffer STU-A019 included in box with product before proceeding.

INSTALLATION:

1. Depressurize and lockout air pressure.
2. Upstream pipes must be free of excessive dirt and liquids.
3. Install the Filter/Regulator as near as possible to the device it is to serve.
4. Install the Filter/Regulator so that air flows in direction of Arrow Label on head.
5. The Filter/Regulator must be installed vertically with drain knob at the bottom.
6. The Filter/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.
7. Filter/Regulators should be installed upstream of any Lubricators in the airline.
8. If installing using modular clamp connections A118-105 or A118-105M, torque screws 30-40 in-lbs.

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 (#1), turn clockwise.
To lower pressure: Pull out on Adjusting Knob (#1), turn counter-clockwise.
3. Push in on Adjusting Knob (#1) to lock in place.
4. For Manual Drain Models: Periodically drain to discharge accumulated liquids by turning Drain Knob (#21) clockwise. Return to full counter-clockwise position.
5. For Float Drain Models: Filter may be drained manually by turning Drain Knob (#21) clockwise until bowl drains. Return to full counter-clockwise position for automatic drain operation.
6. To install 3/16 I.D. flexible tubing, push Drain Knob (#21) up to expose the Drain Clip (#22). Remove the Drain Clip (#22) and Drain Knob (#21). Push tubing on Stem (#23). A tube clamp or zip tie should be used to retain tubing on drain stem.
7. Replace Plastic Bowls with Metal if any signs of crazing or cracking are observed.
8. Replace Element when dirty. If pressure differential reaches 8 psid, element MUST be replaced.

TO CLEAN OR REPAIR:

1. Depressurize and lockout air pressure.
2. Remove Plastic Bowl Assembly (#17 Section View 2) by turning Shatterguard (#16 Section View 2) counter-clockwise. Or remove Metal Bowl Assembly (#17 Section View 1) by turning counter-clockwise.
3. Remove Bowl Baffle (#15) by turning counter-clockwise.
4. The Filter Element (#12) can now be removed. Do Not clean elements, they must be replaced. Sintered Bronze elements may be cleaned by soaking several hours in soap and water, then blowing them out in reverse direction to normal flow with clean, dry compressed air.
5. Remove Valve Retainer (#14) by turning counter-clockwise.
6. Remove Valve Stem Assembly (#8). Visually inspect for defects, replace if needed.
7. To service Internal Float Drain, turn Drain Knob (#21) counter-clockwise until it stops. Then push Drain Knob (#21) up to expose Drain Clip (#22). Remove Drain Clip (#22) and pull off Drain Knob (#21).
8. Remove Drain Nut (#20) by turning counter-clockwise. The Internal Float Drain can now be removed from Bowl and disassembled.
9. The Internal Float Drain and Bowl can now be cleaned.
10. To service Regulator side, reduce Spring load to zero by turning Adjusting Knob (#1) counter-clockwise.
11. Remove Dome (#3) by turning counter-clockwise.
12. Diaphragm Assembly (#7) can now be removed. Visually inspect for defects, replace if needed.
13. When re-assembling, be sure all o-rings are correctly located. Lubricate o-rings with Lithium grease. Torque Valve Retainer (#14) 25 in-lbs. Torque Bowl Baffle (#15) hand tight. Spacer (#6) MUST be between Diaphragm Assembly (#7) and Dome (#3). Torque Dome (#3) 200 in-lbs. Torque Drain Nut (#20) 5-15 in-lbs. The Shatterguard (#16 Section View 2) and Metal Bowl (#17 Section View 1) should be torqued to 75-125 in-lb, and tab must be within notch as shown in Fig 1 and 2.
14. If the Filter/Regulator cannot be repaired by cleaning with soap and water the parts should be replaced.



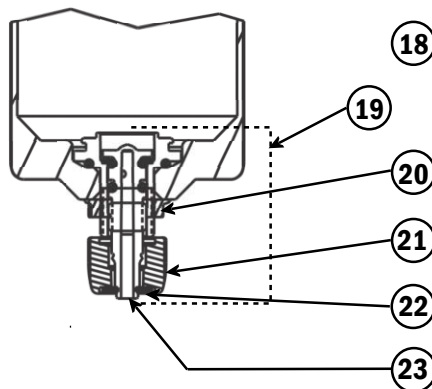
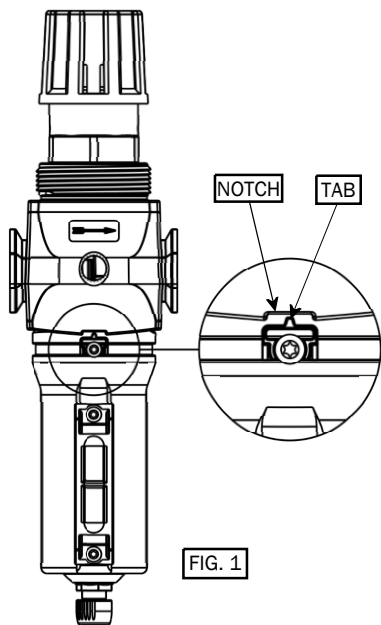
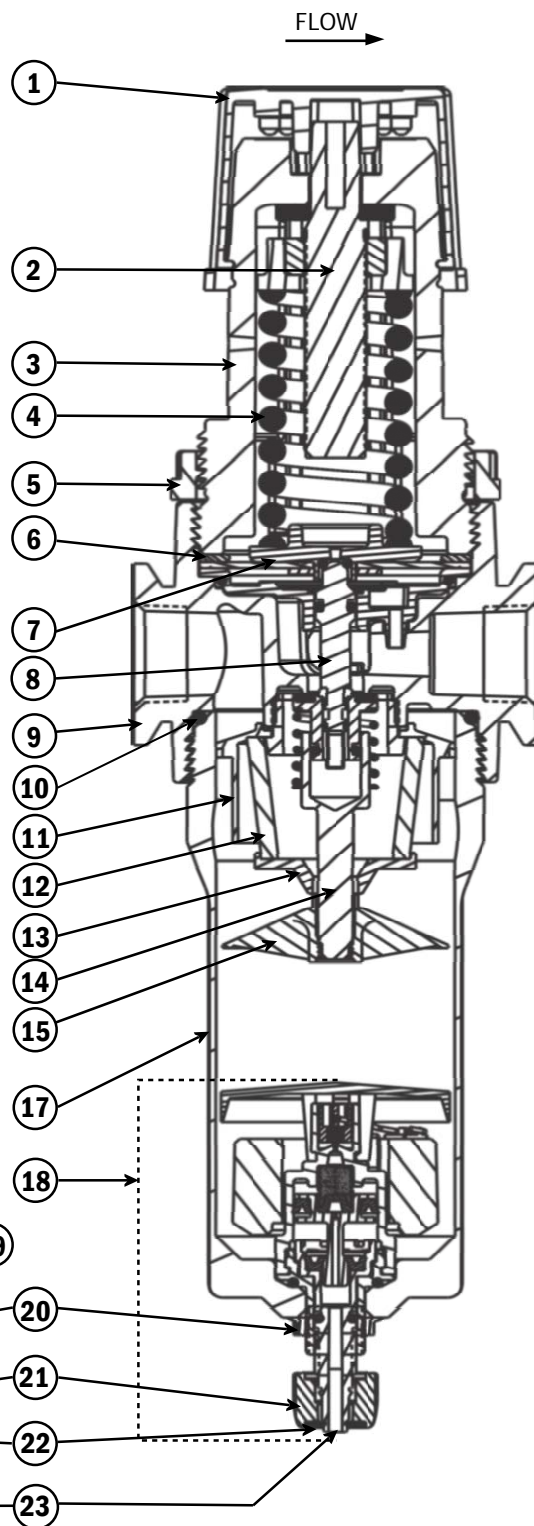
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Section View 1 Metal Bowl

KEY	DESCRIPTION
1	Adjusting Knob
2	Adjusting Screw Assembly (screw & nut)
3	Dome
4	Main Spring
5	Panel Mount Nut (optional)
6	Spacer
7	Diaphragm Assembly (diaphragm, holder & washer)
8	Valve Stem Assembly (valve, stem, seal & two o-rings)
9	Regulator Head
10	O-Ring
11	Head Baffle
12	Element
13	Element Cap
14	Valve Retainer
15	Bowl Baffle
17	Metal Bowl
18	Internal Float Drain
19	Manual Drain
20	Drain Nut
21	Drain Knob
22	Drain Clip
23	Drain Stem





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Section View 2 Plastic Bowl

KEY	DESCRIPTION
1	Adjusting Knob
2	Adjusting Screw Assembly (screw & nut)
3	Dome
4	Main Spring
5	Panel Mount Nut (optional)
6	Spacer
7	Diaphragm Assembly (diaphragm, holder & washer)
8	Valve Stem Assembly (valve, stem, seal & two o-rings)
9	Regulator Head
10	O-Ring
11	Head Baffle
12	Element
13	Element Cap
14	Valve Retainer
15	Bowl Baffle
16	Shatterguard
17	Plastic Bowl
18	Internal Float Drain
19	Manual Drain
20	Drain Nut
21	Drain Knob
22	Drain Clip
23	Drain Stem

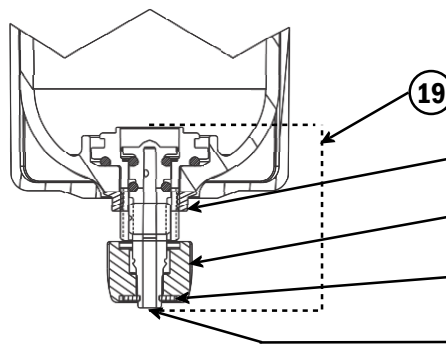
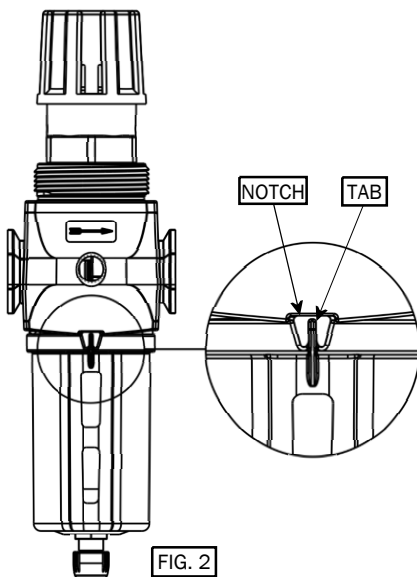
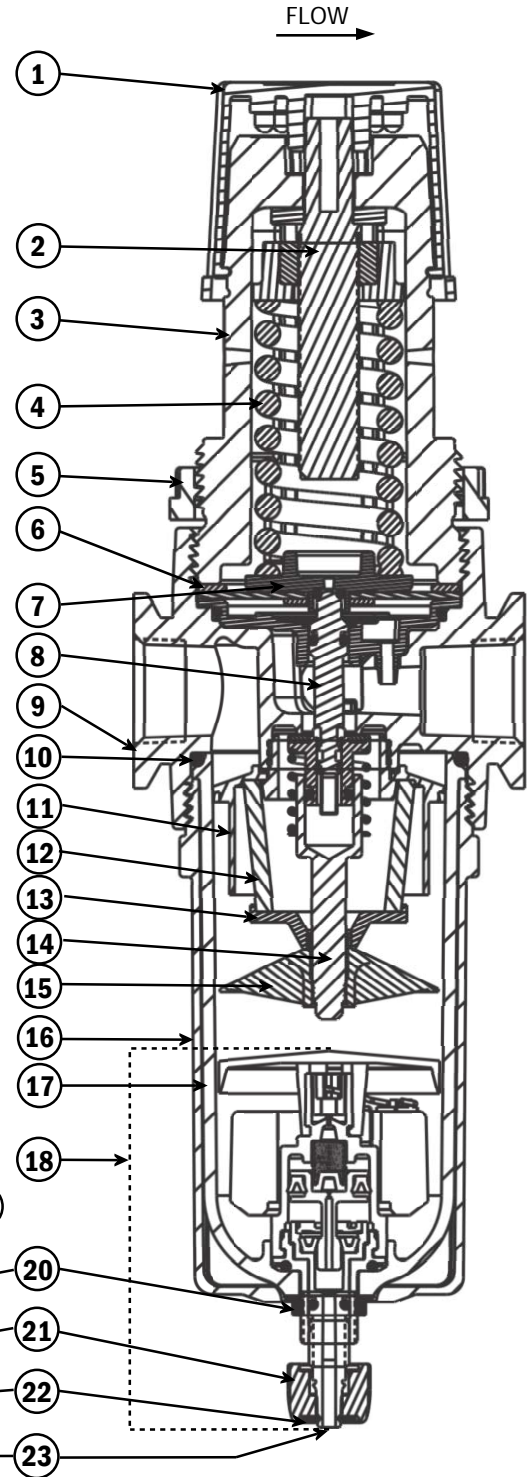


FIG. 2



350 Integral Filter/Regulator Installation and Maintenance

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Replacement Parts and Mounting Accessories

PART NUMBER	DESCRIPTION
Assembly Kits	
A60R-11	Valve Stem Assembly (Valve, Stem, Seal, Spring & O-rings)
A127-05	Diaphragm Assembly Kit (Diaphragm Assembly, Spacer & O-Ring)
A127-05A	Diaphragm Assembly Kit Non-Relieving (Diaphragm Assembly Non-Relieving, Spacer & O-Ring)
A127-07P	Dome Assembly Kit with Panel Nut (Spacer, Panel Mount Nut, Dome, Spring rest, Adjusting Screw Assembly and washer, Adjusting Knob)
Element Kits	
A60F-03PE5	5 um Polyethylene Standard Element Kit (Element, Gasket & O-Ring)
A60F-03E5	5 um Bronze Element Kit (Element, Gasket & O-Ring)
A60F-03E4	20 um Bronze Element Kit (Element, Gasket & O-Ring)
A60F-03E3	40 um Bronze Element Kit (Element, Gasket & O-Ring)
Replacement Bowl with Drain Kits	
AF125-02	Plastic Bowl Manual Drain Assembly (Plastic Bowl, Shatterguard, Manual Drain, Nut, Knob, Clip & O-rings)
AF5A125-02	Plastic Bowl Internal Float Drain Assembly (Plastic Bowl, Shatterguard, Float Drain, Nut, Knob, Clip & O-rings)
ABF125-03	Metal Bowl Manual Drain Assembly (Metal Bowl, Manual Drain, Nut, Knob, Clip & O-rings)
ABF5A125-03	Metal Bowl Plastic Stem Internal Float Drain Assembly (Metal bowl, Float Drain, Nut, Knob, Clip & O-rings)
ABF6A125-03	Metal Bowl Brass Stem Internal Float Drain Assembly (Metal Bowl, Brass Stem Float Drain, Nut, Knob, Clip & O-rings)
Drain Kits	
A802-32	Manual Drain Assembly (Manual Drain, Nut, Knob, Clip & O-rings)
A802-42	Float Drain Assembly (Float Drain, Nut, Knob, Clip & O-rings)
A802-49	Brass Stem Float Drain Assembly (Brass Stem Float Drain, Nut, Knob, Clip & O-rings)
Mounting Brackets and Mounting Nuts	
127-11	Panel Mounting Nut
A127-11	Panel Mount Nut and Mounting Bracket
KA37-68	Gauge Port Mounting Bracket with Stud
KA37-68L	Gauge Port extended Mounting Bracket with Stud
A118-103	Modular Bracket and Screw for adding bracket to existing connecting clamps
A118-105M	Modular Connections and Bracket Kit (Modular connecting clamps, o-ring, screws and bracket)
UMB-2	Bracket for 1/4" piped units (U-bolt, bracket, nut and locking washer)
UMB-3	Bracket for 3/8" piped units (U-bolt, bracket, nut and locking washer)
UMB-4	Bracket for 1/2" piped units (U-bolt, bracket, nut and locking washer)