CFDR100 Installation and Maintenance

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PRODUCT NUMBERS:

CFDR100-2
CFDR100-3
CFDR100-4
CFDR100-6

THANK YOU!

You have just purchased a quality 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 from inlet to outlet as shown on the head.
5. The Filter-Regulator must be installed vertically with drain mechanism 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 connection KA30-04, torque screws 15-20 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 than increasing to 50 psi.
2. To increase pressure turn Adjusting Knob clockwise, to lower pressure turn counter-clockwise.
3. Pull out Adjusting Key for non-adjustment or remove for tamper proof.
4. For Manual Drain models: Periodically drain to discharge accumulated liquids by turning Drain Knob clockwise.
5. For Automatic Drain models: Flexible tubing (3/16" ID) may be installed on the Drain Stem to remove discharges. Turn Drain Knob counter-clockwise until it stops, push up to expose the Drain Clip. Remove Drain Clip and Drain Knob, and push tubing onto Drain Stem. The drain may be adjusted to compensate for differing operating conditions by adjusting the Drain Knob. For low flow or low pressure drop, turn the Drain Knob until the drain just closes. For high flows or high pressure drop, turn the Drain Knob clockwise if reduced drain action is required. Turning the Drain Knob clockwise to the stop puts the drain in a manual shutoff position. Turning the Drain Knob counter-clockwise will manually drain the filter.
6. Replace Plastic Bowls with Metal if any signs of crazing or cracking is observed.
7. 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 Bowl Ring and Bowl Assembly by turning counter-clockwise.
3. Remove Sleeve Assembly by pulling off.
4. The Filter Element 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 compressed air.
5. Remove CFR Cap by turning counter-clockwise.
6. Valve Spring and Valve can now be removed. Visually inspect for defects, replace if needed.
7. To service Automatic Drain, remove Bowl Baffle from Bowl Assembly. Turn Drain Knob counter-clockwise until it stops. Then push Drain Knob up to expose Drain Clip. Remove Drain Clip and pull off Drain Knob.
8. Remove Drain Nut by turning counter-clockwise. The Automatic Drain can now be removed from Bowl and disassembled.
9. The Automatic Drain and Bowl can now be cleaned.
10. To service Regulator side, reduce Spring load to zero by turning Adjusting Knob counter-clockwise.
11. Remove Dome by turning counter-clockwise.
12. Diaphragm Assembly 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. Bowl Baffle must be installed in correct orientation. Torque CFR Cap 55-65 in-lbs. Washer MUST be between Diaphragm Assembly and Dome. Torque Dome 190-210 in-lbs. Torque Drain Nut 5-15 in-lbs. Torque Bowl Ring hand tight.
14. If the Filter-Regulator cannot be repaired by cleaning with soap and water, the parts should be replaced.

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Replacement Parts

DESCRIPTION	PART NUMBER
AID Plastic Bowl Assembly	AFD103-6M
Manual Plastic Bowl Assembly	AF103-6M
AID Metal Bowl Assembly	ABFD103-117
Manual Metal Bowl Assembly	ABF103-117
Element Kit - 5µm	KA103-03PE5
Element Kit - 5µm bronze	KA103-03E5
Element Kit - 20µm bronze	KA103-03E4
Element Kit - 40µm bronze	KA103-03E3
AID Drain Kit	D380
Manual Drain Kit	A802-32
Valve Assembly	A35-10M
Diaphragm Assembly	A37-03
Dome Assembly w/Panel Nut	A37-02P
Adjustment Knob Assembly	KA37-62
Panel Mount Nut & Bracket	K37-71
Panel Mount Nut	37-32
Gauge Port Wall Bracket	KA37-68
Gauge Port Extended Wall Bracket	KA37-68L

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Parts Listing

KEY	DESCRIPTION
1	Key
2	Adjusting Knob
3	Adjusting Screw
4	Nut
5	Spring Rest
6	Main Spring
7	Dome
8	Washer
9	O-Ring
10	Diaphragm Assembly
11	Head
12	Pitot Tube
13	Valve Stem
14	Valve
15	Valve Spring
16	CFR Cap
17	O-Ring
18	O-Ring
19	Bowl Ring
20	Filter Element
21	Sleeve Assembly
22	Plastic Bowl
23	Bowl Baffle
24	Shatterguard
25	Automatic Drain
26	Drain Nut
27	Drain Knob
28	Drain Clip
29	Manual Drain