



# CFDR380 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:

CFR380-3  
CFDR380-4  
BCFDR380-6

For integrals with float drain option  
'5A' or '6A' see STU-4030.

## 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:** Before proceeding Read Warning Stuffer STU-A019 included in box with polycarbonate products.

### 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 on 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 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 turn Adjusting Knob (2) clockwise, to lower pressure turn counter-clockwise.
3. Pull out Adjusting Key (1) for non-adjustment or remove for tamper proof.
4. For Manual Drain models: Periodically drain to discharge accumulated liquids by turning Drain Knob (32) clockwise.
5. For Automatic Drain models: Flexible tubing (3/16" ID) may be installed on the Drain Stem (34) to remove discharges. Turn Drain Knob (32) counter-clockwise until it stops, push up to expose the Drain Clip. Remove Drain Clip (33) and Drain Knob (32), and push tubing onto Drain Stem (34). The drain may be adjusted to compensate for differing operating conditions by adjusting the Drain Knob (32). For low flow or low pressure drop, turn the Drain Knob (32) until the drain just closes. For high flows or high pressure drop, turn the Drain Knob (32) clockwise if reduced drain action is required. Turning the Drain Knob (32) clockwise to the stop puts the drain in a manual shutoff position. Turning the Drain Knob (32) counter-clockwise will manually drain the filter.
6. Replace Plastic Bowls with Metal if any signs of crazing or cracking are 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 Retaining Ring (21) and Bowl (29), including shatter guard (22) with plastic bowl, by turning counterclockwise.
3. Remove Lower Baffle (28) by turning counterclockwise.
4. The Filter Element (25) 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 Valve Cap (23) by turning counter-clockwise.
6. Valve Spring (18) and Valve (17) can now be removed. Visually inspect for defects, replace if needed.
7. To service Automatic Drain (30), turn Drain Knob (32) counterclockwise until it stops. Then push Drain Knob (32) up to expose Drain Clip (33). Remove Drain Clip (33) and pull off Drain Knob (32).
8. Remove Drain Nut (31) by turning counterclockwise. The Automatic Drain (30) can now be removed from Bowl (29) and disassembled.
9. The Automatic Drain (30) and Bowl (29) can now be cleaned.
10. To service Regulator side, reduce spring load to zero by turning Adjusting Knob (2) counter-clockwise.
11. Remove Dome (10) by turning counter-clockwise.
12. Diaphragm Assembly (11) 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 Lower Baffle (28) maximum 5 in-lbs. Torque Valve Cap (23) 55-65 in-lbs. Adjusting Washer (12) MUST be between Diaphragm Assembly (11) and Dome (10). Torque Dome (10) 190-210 in-lbs. Torque Drain Nut (31) 5-15 in-lbs. Torque bowl Retaining Ring (21) 30-50 in-lbs. When bowl Retaining Ring is fully in place, there should be a gap between the bowl Retaining Ring (21) and Head (13) of 0.020"-0.040". (See sectional on Parts Listing.)
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

For integrals with float drain option '5A' or '6A' see STU-4030.

DESCRIPTION	PART NUMBER
<b>ELEMENT KITS</b>	
Standard 5 um Polyethylene with o-ring	A115-106PE5
40 um Polyethylene with o-ring	A115-106PE3
5 um Sintered Bronze with o-ring	A115-106E5
20 um Sintered Bronze with o-ring	A115-106E4
<b>PLASTIC BOWL KITS</b>	
Manual Plastic Bowl Assembly- drain, bowl, nut, knob, clip, retaining ring and o-rings	AF115-109
Automatic Internal Drain Plastic Bowl Assembly- drain,bowl, nut, knob, clip, retaining ring & o-rings	AFD115-109
<b>METAL BOWL KITS</b>	
Manual Metal Bowl Assembly- drain, bowl with sight glass, nut, knob, clip, retaining ring & o-rings	ABF115-100
Automatic Internal Drain Metal Bowl Assembly- drain, bowl with sight glass, nut, knob, clip, retaining ring and o-rings	ABFD115-100
<b>MISCELLANEOUS KITS</b>	
Manual Drain Kit - manual drain assembly, nut, knob, clip and o-ring	A802-32
Automatic Internal Drain Kit - auto drain assembly, nut, knob, clip and o-ring	D380
Valve Assembly Kit - valve, stem, seal and o-rings	A35-10M
Diaphragm Assembly Kit - diaphragm, rest, washer and o-ring	A37-03
Dome Assembly with Panel Nut - adjusting key, knob, screw, drive nut, spacer, washer, spring rest, dome, metal panel mounting nut (not shown in parts listing)	A37-02P
Adjustment Knob Assembly- adjusting key, knob, screw and drive nut.	KA37-62
<b>MOUNTING ACCESSORIES</b>	
Panel Mount Nut & Bracket	K37-71
Panel Mount Nut	37-345F
Gauge Port Wall Bracket with mounting pipe stud	KA37-68
Gauge Port Wall Bracket with extended mounting pipe stud	KA37-68L



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## Parts Listing

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KEY	DESCRIPTION
1	Adjusting Key
2	Adjusting Knob
3	Screw
4	Drive Nut
5	Spacer
6	Adjusting Washer
7	Adjusting Screw
8	Spring Rest
9	Main Spring
10	Dome
11	Diaphragm Assembly
12	Washer
13	Head
14	O-ring
15	Pitot Tube
16	Valve Stem
17	Valve
18	Valve Spring
19	O-ring
20	O-ring
21	Retaining Ring
22	Shatterguard
23	Valve Cap
24	Upper Baffle
25	Filter Element
26	Stud
27	Filter Element Rest
28	Lower Baffle
29	Bowl
30	Automatic Drain Assembly
31	Drain Nut
32	Drain Knob
33	Drain Clip
34	Drain Stem
35	Manual Drain Assembly

