



# CFDR10M/CFDR11M Installation and Maintenance

**MASTER PNEUMATIC-DETROIT, INC.**

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JAA 09-13-05  
REV MJF 06-04-13  
ECN 4876

## 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

### INSTALLATION:

1. Depressurize and lockout air pressure.
2. Upstream pipes must be free of excessive dirt and liquids.
3. Install the Filter/ Regulator in airline as near as possible to the device it is to serve.
4. Install the Filter/ Regulator so air flows in same direction as arrow on head.
5. Filter/ Regulator should be installed before any Lubricators or Valves in airline.
6. The Filter/ Regulator has gauge ports on head. Install a pressure gage or plug into the gauge ports.

### OPERATION:

1. Manual drains must be periodically drained of accumulated liquids.  
For Plastic Bowls with Manual or Automatic Internal Drain, manually drain by pushing up on Drain Knob (#15).  
For Metal Bowls with Manual or Automatic Internal Drain, manually drain by turning Drain Knob (#15) counter-clockwise.
2. 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.
3. To increase pressure: Lift up on Adjusting Knob (#1), turn clockwise.  
To lower pressure: Lift up on Adjusting Knob (#1), turn counter-clockwise.
4. Push down on Adjusting Knob (#1) to lock in place.

### TO CLEAN OR REPAIR:

1. Depressurize and lockout air pressure.
2. Remove Bowl Assembly (#14 or #16 or #17 or N.S.) by turning counter-clockwise.
3. Remove Filter Element (#11) by turning Stem (#12) counter-clockwise.
4. Do not clean white polyethylene elements, they must be replaced.
5. Sintered Bronze elements may be cleaned by soaking several hours in a suitable solvent, then blowing them out with compressed air, in reverse direction to normal air flow.
6. To service automatic internal drain: Remove Bowl Assembly (#14 or #17) by turning counter-clockwise, then remove Piston Drain top (#13).
7. Clean Bowl Assembly (#14 or #17) and Piston Drain top (#13) with soap and water, then reassemble.
8. Reduce spring load to zero by turning Adjusting Knob (#1) counter-clockwise.
9. Remove Dome (#3) by turning counter-clockwise.
10. The Piston (#7) or Diaphragm Assembly (#6) can now be removed.
11. Visually inspect Piston (#7) or Diaphragm Assembly (#6) for defects. If necessary replace.
12. Unscrew Valve Seat (#8). Remove Valve Assembly (#10) including poppet, guide, o-ring and spring.
13. Visually inspect Valve Assembly (#10) for defects. If necessary replace.
14. When re-assembling, be sure all seals are correctly located. The Valve Seat (#8) is torqued to 3-5 in-lbs, do not over tighten. The Dome (#3) is torqued to 90-100 in-lbs.
15. If the Filter/ Regulator cannot be repaired by cleaning with soap and water, the parts should be replaced.
16. Plastic bowls may be cleaned with soap and water. Replace plastic bowls with metal if any signs of crazing or cracking are observed.



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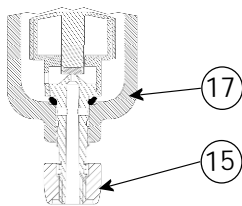
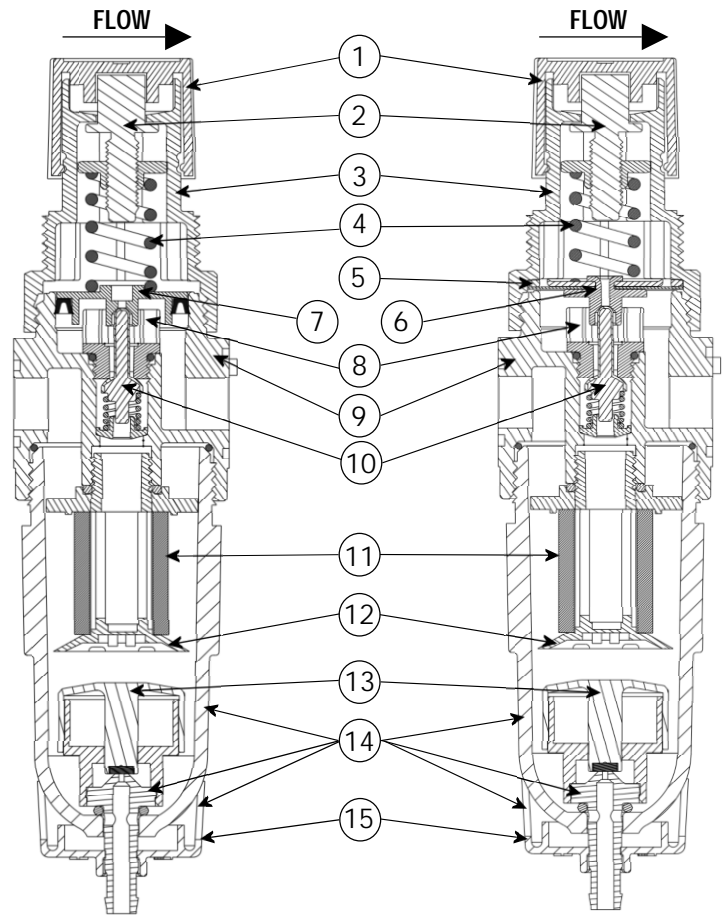
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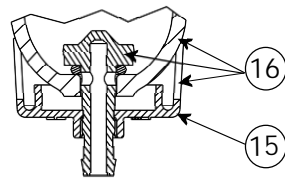
## Parts List

KEY	DESCRIPTION
1	Adjusting Knob
2	Adjusting Screw Assembly
3	Dome
4	Main Spring
5	Spacer
6	Diaphragm Assembly
7	Piston Assembly
8	Valve Seat
9	Head
10	Valve Assembly
11	Filter Element
12	Stem
13	Piston Drain Top
14	AID Bowl Assembly, Plastic
15	Drain Knob
16	Manual Bowl Assembly, Plastic
17	AID Bowl Assembly, Metal
Not Shown	Manual Bowl Assembly, Metal

## Section View



**SECTION VIEW**  
(Metal Bowl Auto Drain)



**SECTION VIEW**  
(Plastic Bowl Manual Drain)

**CFDR10M SECTION VIEW**  
(Plastic Bowl Automatic Internal Drain Piston Regulator)

**CFDR11M SECTION VIEW**  
(Plastic Bowl Manual Drain Diaphragm Regulator)

## Replacement Parts

PART NUMBER	DESCRIPTION
A33-533	Valve Assembly Kit (Poppet Valve, Valve Spring, Valve Guide & O-ring)
A10R-56	Diaphragm Assembly Kit (Diaphragm, Support, Retainer & Spacer)
A33-544	Piston Assembly Kit (Piston and U-cup)
A33-75	Adjusting Screw Assembly Kit (Adjusting Screw, Spring Rest)
A10FD-130	Automatic Internal Drain Bowl Kit, PLASTIC (Bowl, Knob, Drain Housing, Drain Plug, Piston Drain Top, Seal, and O-rings)
A10F-130	Manual Drain Bowl Kit, PLASTIC (Bowl, Knob, Drain Plug, O-rings)
ABFD130-22	Automatic Internal Drain Bowl Kit, METAL (Bowl, Auto Drain Stem, Knob, Drain Housing, Piston, Top, Seal, and O-rings)
ABF130-22	Manual Drain Bowl Kit, METAL (Bowl, Drain Stem, Knob, and O-rings)
KA130-27PE5	Standard Filter Element Kit, 5 um polyethylene
KA130-27E5	Optional Filter Element Kit, 5 um sintered bronze
KA130-27E4	Optional Filter Element Kit, 20 um sintered bronze
KA130-27E3	Optional Filter Element Kit, 40 um sintered bronze