MEGR-CS1200 Series Instruction

MEGR-CS1200 Series 2nd Stage-Low Pressure Regulators

Instruction Manual- **Look Inside For:**

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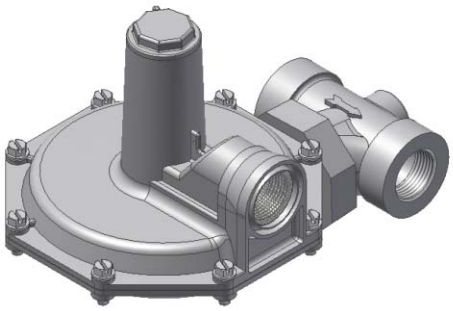

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Form #905 Rev A

DESCRIPTION

The Type MEGR-CS1200 pressure regulator is ideal for propane and general-purpose gas pressure regulation. The MEGR-CS1200 is a spring loaded, self-operating pressure regulator, and is equipped with an internal relief valve. Uses include commercial, residential and light industrial for burners and unit heaters. The MEGR-CS1200 has an internal relief device.

PRIOR TO INSTALLATION

1. Examine regulator for damage from shipping
2. Check label. Make sure the regulator conforms with what you ordered
3. Provide suitable shut-off valves conveniently located
4. Place regulator in a place that is protected from vehicles or other outside sources.
5. The inside of the regulator and piping must be clean. Remove all dirt and debris before installing the regulator. Failure to do this could result in regulator damage and improper operation. Where there are dirt problems in gas it may be necessary to install a suitable filter upstream from the regulator.
6. Remove all shipping plugs before installation.

INSTALLATION

1. Installation, operation, maintenance, and service should only be performed by qualified personnel in accordance with NFPA 54 & 58 and other local, State and Federal Regulations.

WARNING!
Over pressurizing the regulator or any of its adjacent piping could cause equipment damage, property damage, or personal injury as a result of the bursting of any pressure containing parts. It is highly recommended that a pressure-limiting device (usually required by an appropriate code, regulation, or standard) be installed to prevent operating conditions from exceeding any limits.

2. Make sure the inlet and outlet connections are correct. The flow arrow must point downstream.
3. Threaded connections must conform to good piping practice and be free of excess thread engagement (per ANSI B1.20.1). Apply pipe joint sealant to male threads only.
4. Before start-up, make sure the regulator is correctly connected, and pipe joints are tight.

WARNING!
It is the user's responsibility to assure that all regulator vents and/or vent lines exhaust to a non-hazardous location away from any potential sources of ignition. When vent lines are used, it is the users responsibility to assure that each regulator is individually vented and that common vent lines are not used.

WARNING!
Open downstream shut-off valve, and then turn the gas on very slowly. Do not overload the diaphragm with a sudden surge of inlet pressure. During start up, a pressure gauge must be connected to the outlet piping between the regulator and the down-stream valve to closely monitor output pressure.

START-UP

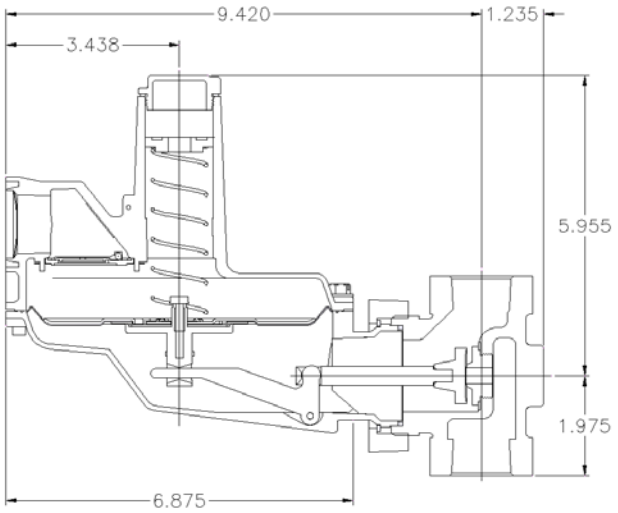
1. Make certain there are no leaks and all connections are tight.
2. Adjust outlet pressure (set-point) by removing Bonnet Cap (Item #1) and Square Ring (Item #2) and turning adjustment screw (Item #21). Turn clockwise to increase output pressure and counter clock wise to decrease outlet pressure. Only adjust when gas is flowing through regulator then be sure to replace bonnet cap and square ring.

WARNING!
It is the user's responsibility to ensure that all regulator vents exhaust to a non-hazardous location away from any potential source of ignition.

3. The vent connection is an escape path for the regulated gases. Depending on the type of gas it could be ignitable/flammable as with propane and natural gas. Regulators that are installed indoors or in a non-vented area must be vented outside. For regulators installed outside it Is recommended that the exhaust vent be facing downward to avoid the potential for water and other foreign matter interfering with proper function of the regulator.

NOTICE:
If the customer wishes to establish regulator set-point, contact factory and provide inlet and outlet pressures.

DIMENSIONS



GENERAL INSPECTION AND MAINTENANCE

1. Inspect the regulator periodically to make sure it is properly functioning. Establish the frequency of inspection based on the severity of service and applicable state laws and regulations.

WARNING!
Before any disassembly of the regulator, make sure it is completely depressurized. Pressure must be completely released from the inlet, outlet, and any connecting lines. Failure to do this could result in serious injury.

2. Carefully note the location and position of all disassembled parts to ensure reassembly is correct. Inspect each part carefully and replace worn of damaged parts.
3. Adjustment screw lubrication should be checked whenever regulator is serviced. Make sure all male threads are lubricated.
4. Upon completion of routine maintenance make certain the regulator installation is free of leaks.

To Access the Range Spring:

1. Remove Bonnet Cap (Item #1) and Bonnet Square Ring (Item #2) from Bonnet (Item #3). If square ring appears damaged, replace it.
2. Remove Adjusting Screw (Item #21) from Bonnet using a standard screwdriver.
3. Remove the Range Spring (Item #20) from the Bonnet. Inspect the Range Spring for damage. If the output pressure range is being changed, rest the new Range Spring on the Diaphragm Assembly (Item #7), mark the label on the bonnet neck to call out the new pressure range and reassemble by reversing the above steps.

To Access the Diaphragm Assembly:

1. Remove Range Spring as described above.
2. Remove Build Screws (Item#19) and lift Bonnet (Item#3) off of Housing. Carefully slide diaphragm assembly away from Body (Item #14) to disengage it from the Lever (Item #9).
3. Inspect Diaphragm assembly, if diaphragm is damaged, replace assembly. If no there is no visible damage on the diaphragm remove center screw from diaphragm assembly and inspect the sealing surface of the white plastic pusher post.
4. Reassemble the diaphragm assembly, make sure the center screw bottoms out on the top of the pusher post.
5. Reassemble the unit, make sure that the Lever (Item #9) is engaged with the rectangular hole on the pusher post of the Diaphragm Assembly (Item #7).
6. Replace the bonnet, make sure the vent port is positioned correctly. Tighten Build Screws in a star pattern to 40 in-lbs. Reinstall Range Spring.

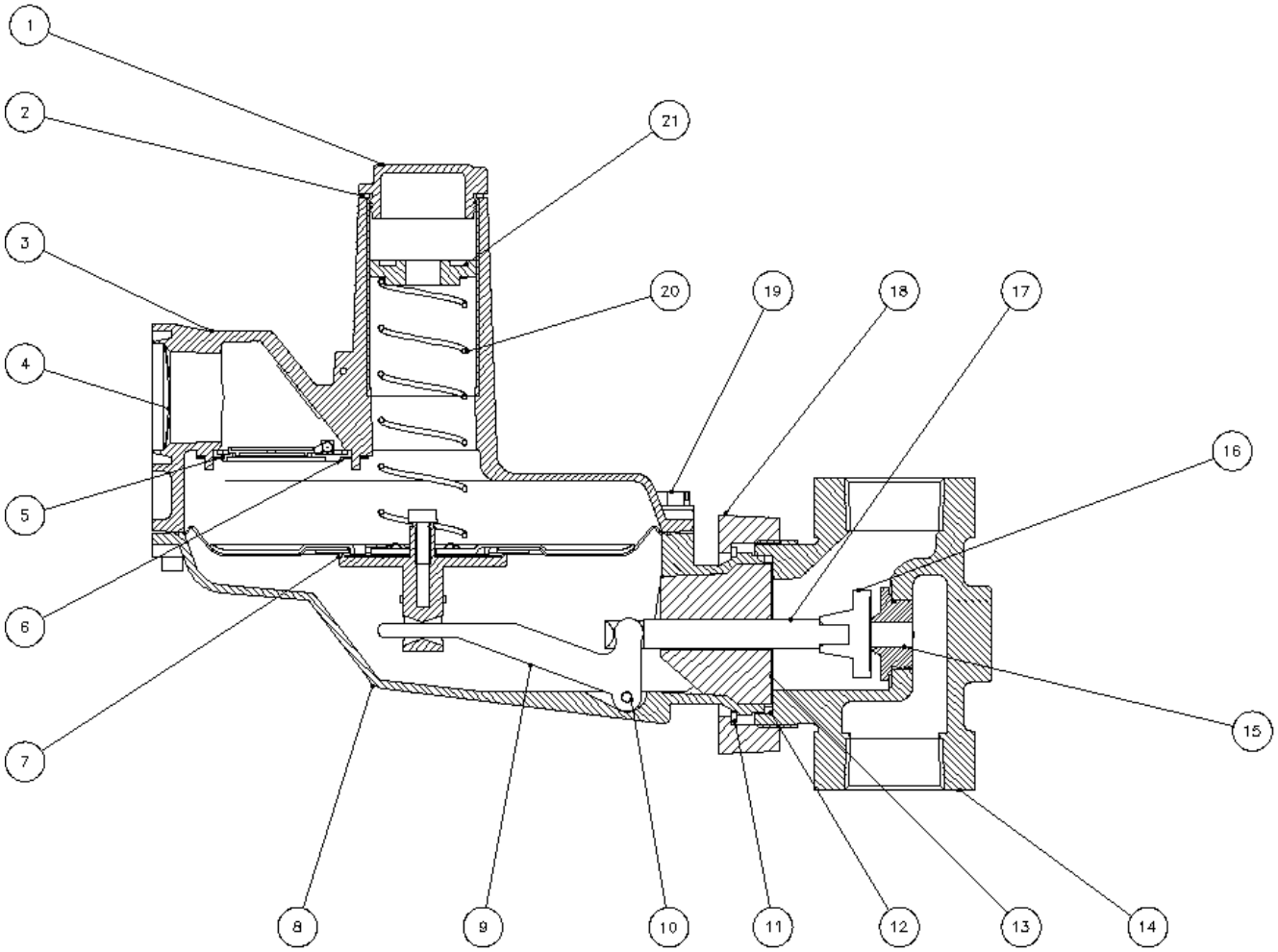
To Access the Orifice and Main Seat:

1. Unscrew the Housing Nut (Item #18) and remove the Main Body (Item #14) and Square Ring (Item #12).
2. Inspect the Orifice (Item #15) and the Stem Seat (Item #16), if either have nicks or scratches, replace them.
3. Remove the orifice for inspection or replacement, when reinstalling, apply thread-locker and torque to 24 ft-lbs.
4. Place the square ring in the counter bore of the body and reassemble by hand tightening housing nut, and then tightening one quarter turn more using a spanner wrench. Once pressure is reapplied check the nut for leaks. Continue tightening by quarter turns until leaks stop.

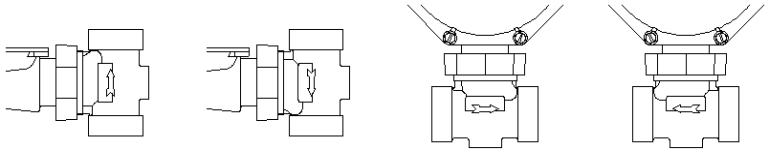
MEGR-CS1200 STANDARD PARTS LIST

Item	Part Description	Qty
1	Bonnet Cap	1
2	Square Ring, Bonnet	1
3	Bonnet	1
4	Exhaust Screen	1
5	Vent Assembly	1
6	Vent Collar	2
7	Diaphragm Assembly	1
8	Housing Assembly	1
9	Lever	1
10	Fulcrum Pin	1
11	Retaining Ring	1
12	Square Ring	1
13	Valve Stem Guide	1
14	3/4" NPT Body	1
	1" NPT Body	
	3/4"x1" NPT Body	
	1"x1-1/4" NPT Body	
	1-1/4" NPT Body	
15	1/8" Orifice	1
	3/16" Orifice	
	1/4" Orifice	
	5/16" Orifice	
	3/8" Orifice	
	1/2" Orifice	
	5/8" Orifice	
16	Stem Seat	1
17	Valve Stem	1
18	Nut, Housing	1
19	Build Screw	8
20	3.5"-6.5"W.C. Range Spring	1
	5"-8.5"W.C. Range Spring	
	6"-14"W.C. Range Spring	
	12" W.C – 1 PSI Range Spring	
	1/2 – 2 PSI Range Spring	
	1/2 – 3 PSI Range Spring	
	2 – 6 PSI Range Spring	
21	Adjusting Screw	1

MEGR-CS1200
STANDARD REGULATOR



BODY POSITIONS



BONNET POSITIONS