



# MPA-1000C / MPA-2000C

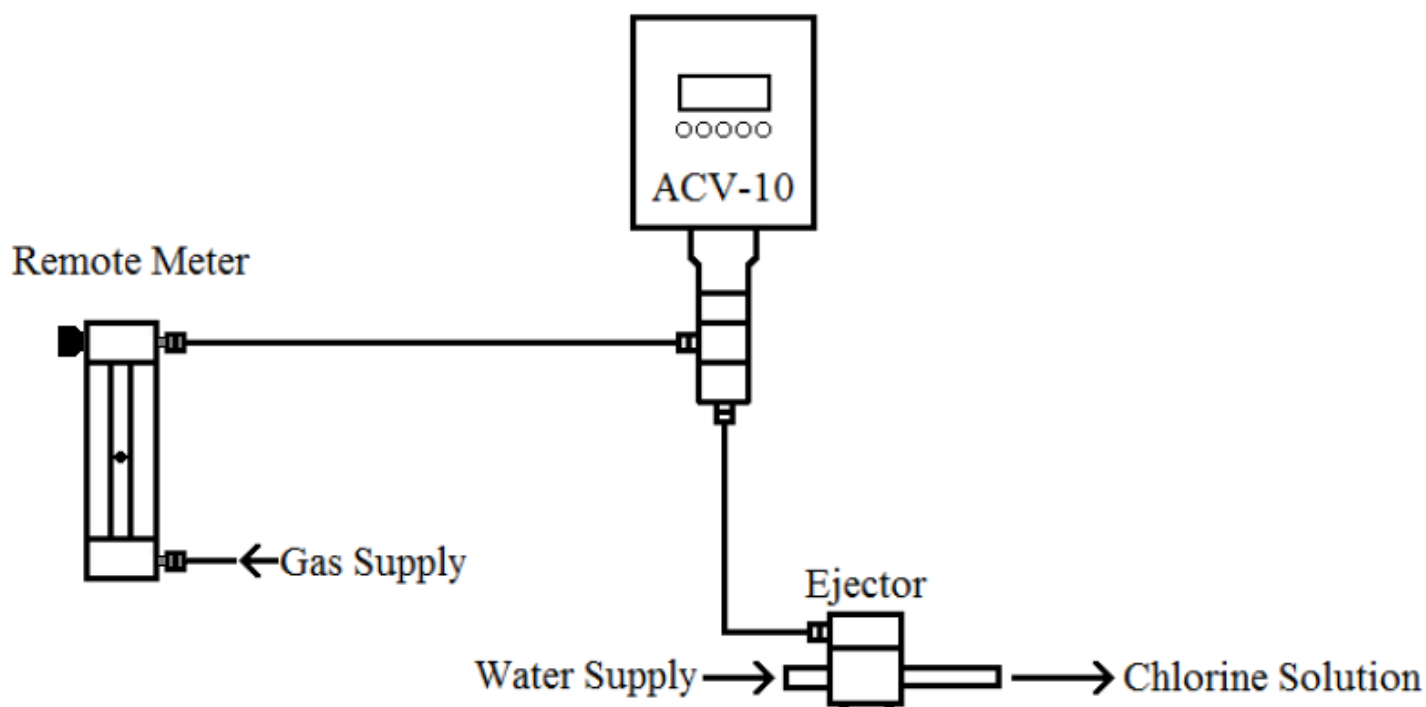
## High Capacity Remote Meter Panel

### Installation, Operation & Maintenance

**General:** The Archer Instruments MPA-1000C / MPA-2000C series of remote meter panels are designed to provide a visual indication of gas feed rate and to allow for smooth and precise feed rate adjustment.

#### **Installing the Model MPA-1000C / MPA-2000C:**

- 1) The remote meter panel is typically installed on a wall or panel using the pre-drilled mounting holes found on the meter body. The remote meter panel is installed in the system between the vacuum source (ejector) and the gas source (vacuum regulators). See the illustration on the next page.
- 2) Note that the gas flows up through the remote meter panel, and from the chlorine cylinder to the ejector. The top 1" union connector is connected to the ejector (vacuum source) and the bottom 1" union connector to the vacuum line from the gas source.
- 3) Once the remote meter panel is mounted and the tubing connected, it can be used to perform a quick check on the system for vacuum leaks. By operating the ejector with the chlorine cylinder valve(s) shut, the ball in the remote meter panel should settle at the bottom and not move. If the ball continues to float above the bottom stop or if it bounces, a vacuum leak is indicated in the system.



### **Operating the MPA-1000C / MPA-2000C:**

- 1) Once installed and connected, the remote meter panel is placed into operation by placing the system into operation (aligning gas supply and operating the ejector).
- 2) Turn the rate valve knob until the desired feed rate is indicated.

### **NOTES:**

- 1) If the system design incorporates an Automatic Control Valve (See ACV-10) the manual rate valve on the MPA-1000C or MPA-2000C Meter Panel must be left open so as not to interfere with automated feed rate adjustments.
- 2) The rate control valve is not designed to be used as a shut-off valve. To shut off gas feed, shut off motive water to the ejector.

## **Maintaining the MPA-1000C / MPA-2000C:**

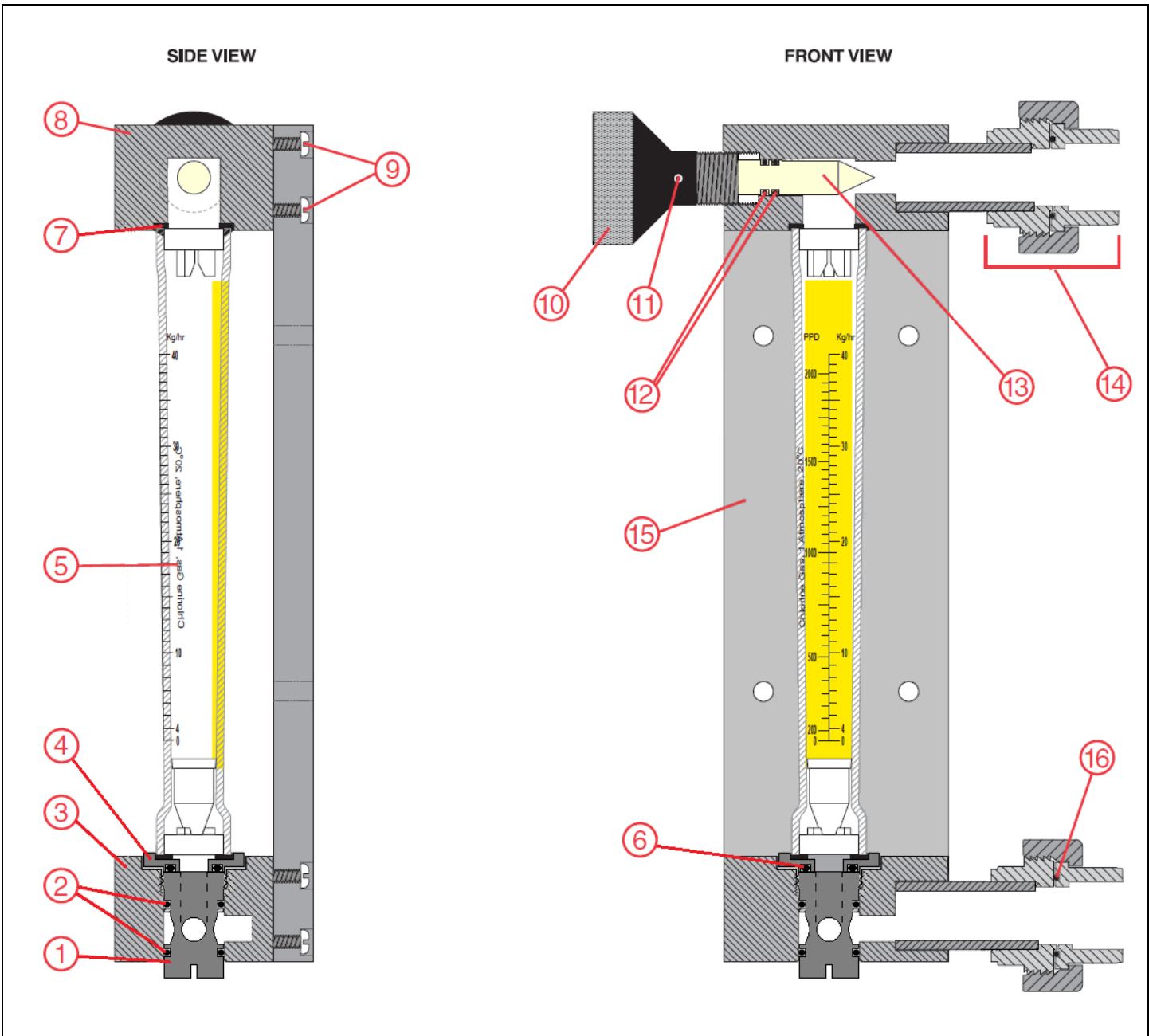
Recommended Maintenance Frequency: Archer Instruments recommends routine maintenance every two years - or whenever the meter tube or rate valve stem become fouled with residue or other debris (whichever occurs sooner).

**NOTE:** Occasional lubrication (using Fluorolube grease) of the two (2) OA-VIT-112 o-rings located on the RVA-40S rate valve stem, is advised for continuous smooth rate valve operation. This can be done by simply unscrewing the rate valve fully until it can be pulled out of the MBA-40T top meter block, lubricating the o-rings and reinstalling.

-Refer to the following parts diagram (next page) when performing maintenance on the remote meter panel.

- 1) To disassemble the remote meter panel, first shut the cylinder valves and evacuate the gas inside by disconnecting the vacuum line between the remote meter panel and the vacuum regulator(s). Then remove the remote meter from the system.
- 2) Next unscrew the RVA-40K / RVA-40S rate valve & knob from the top left of the meter body until it can be gently pulled straight out.
- 3) Next remove the glass meter tube by slowly unscrewing the MIA-40P inlet plug. This clamps the glass tube into place. So take care as you unscrew it not to let the glass meter tube fall out.
- 4) The MIA-40P inlet plug and MIA-40D meter disc can then be removed fully by unscrewing the MIA-40P several turns and then pulling it down.
- 5) Using a small flathead screwdriver or other small tool, remove the top and bottom meter gaskets from the meter body and meter disc.
- 6) Remove OA-VIT-112 o-rings from the stem, OA-VIT-212 o-rings from the inlet plug and OA-VIT-116 o-ring from the meter disc.
- 7) Clean all parts carefully. Reassemble using new o-rings and meter gaskets. Apply a thin film of Fluorolube grease to each o-ring.

*-Should you have any questions during maintenance of your remote meter panel, please contact your local service provider or Archer Instruments for support.*



Item#	Qty.	Part #	Description	Item#	Qty.	Part #	Description
1	1	MIA-40P	Meter Inlet Plug	9	8	BTA-40	¼-20 x 1" Screw
2	2	OA-VIT-212	O-Ring	10	1	RVA-40K	Rate Valve Knob
3	1	MBA-40B	Bottom Meter Block	11	1	RVA-PIN	1/8" x 1" Roll Pin
4	1	MIA-40D	Meter Disc	12	2	OA-VIT-112	O-Ring
5	1	MTA-XX	Meter Tube	13	1	RVA-40S	Rate Valve Stem
		20 / 40	1,000 PPD / 2,000 PPD				
6	1	OA-VIT-116	O-Ring	14	2	VUA-40	1" PVC Union - socket
7	2	MGA-40	Meter Gasket	15	1	MBA-40Z	Meter Base
8	1	MBA-40T	Top Meter Block	16	2	OA-VIT-215	O-Ring

**Notes:** Standard vacuum connectors supplied are 1" Sch. 80 PVC socket unions. Unions with 1" FNPT connections can be provided upon request.



Date: Oct 2017  
Drawing Number: MP2000