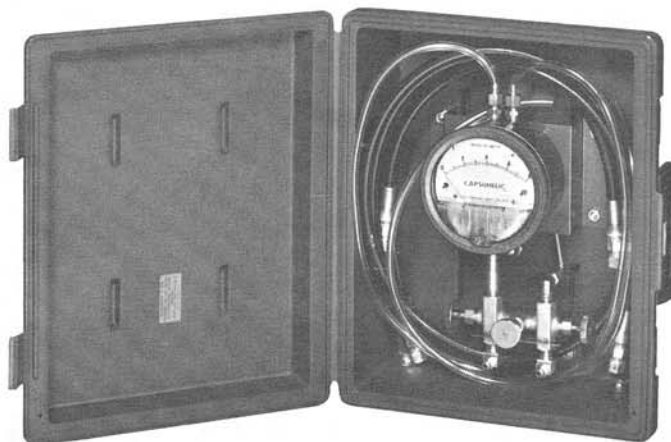




A-471 CAPSUHELIC PORTABLE KIT

This kit has been carefully engineered to include everything needed to adapt the 4000 series Capsuhelic gage for portable use. Once assembled, you can quickly, conveniently, and accurately measure positive, negative, or differential pressures of air and compatible gases and fluids. The Capsuhelic gage is not included in the kit. You should order it separately in the range best suited to your needs. It is available in many ranges from 0—0.50 in. W.C. up to 0-300 PSI.



Operating Instructions

(See reverse side for kit assembly instructions)

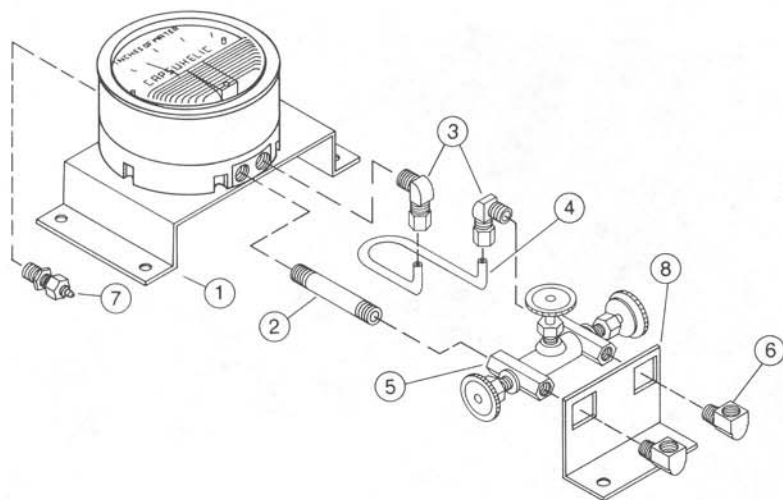
- As noted in the assembly instructions, the equalizer and shutoff manifold must be installed in the upper pressure ports for air or gases and in the lower ports for fluids. This allows you to use the bleed fittings in the opposite ports to either drain condensate, (air or gas service) or purge air from the gage (fluid service).
- Open case and place on a horizontal surface with the gage vertical as shown in photo above.
- Close all three valves and attach the five foot high pressure hoses to the elbow connectors marked PROC. Connect the other ends to the pressure sources. When measuring differential pressures, the right high pressure line is run to the higher of two pressures and the left, low pressure line to the lower. You may also measure a single pressure, positive or negative, relative to atmosphere. Positive pressures are applied to the high pressure port and negative pressures to the low pressure port. Be sure the center equalizer valve is closed and the opposite port is vented.
- If measuring liquid pressure the following procedure is necessary. Open both bleed fittings using a 9/16" open end wrench. Attach the clear vinyl tubes to these fittings and position the other ends in a suitable container to collect the bled fluid. Slowly open all three valves until fluid leaves both bleed fittings thus indicating the gage is filled. Close both bleed fittings and drain remaining fluid.

On air or gas service, slowly open all three equalizer valves. Next open both bottom bleed fittings to expel any condensate. Finally, close the bleed fittings before placing gage in service.
- Close the left, low pressure valve. This will apply the higher pressure equally to both sides of the diaphragm. Turn the zero adjust screw at bottom of gage cover until the pointer is exactly on zero.
- Close the center equalizer valve and open the left, low pressure valve. The gage will now be indicating differential pressure.
- When all measurements are completed, disconnect pressure lines. If used on fluid, open bleed fittings and equalizer valve to drain entire assembly before storing.



"The low pressure people"

A-471 PORTABLE KIT



NO.	DESCRIPTION	PARTS LIST	QUANTITY REQ'D.
1.	Gage Mounting Bracket		1
2.	Nipple 1/4" NPT x 3"		1
3.	Elbow, 1/4" Compression x 1/4" NPT Male ...		2
4.	Formed Copper Tube		1
5.	3 Way Manifold Valve		1
6.	Street El, 1/4" NPT Male x 1/4" NPT Female		2
7.	Bleed fitting 1/4" NPT Male		2
8.	Manifold Mounting Bracket		1

FOLLOWING ITEMS NOT SHOWN:

9.	Carrying Case		1
10.	5 Ft. High Pressure Hose		2
11.	6-32 x 5/16" Machine Screw		4
12.	10-32 x 1 1/4" Machine Screw		2
13.	10-32 Hex Nut		2
14.	3/16" x 7/16" Washer		2
15.	1/4"-20 x 1 1/2" Truss Head Machine Screw ...		6
16.	1/4"-20 Hex Nuts		6
17.	Plastic Feet		2
18.	3/4" Plastic Hole Plugs		6
19.	3/16" Plastic Hole Plugs		2
20.	Vinyl Tube 3 Ft. Long		2
21.	Adapter Elbow, 3/16"-20 x 1/4" NPT Male		2
22.	Straight Adapter, 3/16"-20 x 1/4" NPT Male ..		2

To Assemble Kit

NOTE: Before beginning assembly you must determine whether the gage will be measuring pressures of gases or fluids. Installation is reversed for the two types of media. Seal all pipe threads with Teflon tape or pipe joint compound.

- Attach two plastic feet to case through holes provided. First insert #12 screw through #17 plastic foot and case. Secure to case from inside with #14 washer and #13 nut. Tighten nut only until foot is snug. Overtightening can collapse case wall. With case handle facing you, left hand pair of holes are used if for fluid service and right hand holes for air or gas service. Plug unused holes with #19 plastic hole plugs. Insert from outside, and press to lock.
- Install one #3 elbow in the left "INST" port of the 3-way manifold valve. Install the second elbow in the bottom high pressure gage port for fluid service or the top low pressure gage port for air or gas service. Both fittings must face back when tight.
- Install #2 nipple in remaining "INST" port of manifold and both #6 elbows in the two "PROC" ports. These elbows should face front when tight.
- The manifold assembly is now attached to the gage by installing the other end of the nipple in the gage port next to the #3 elbow.
- Installed #4 formed copper tube in #3 compression elbows.
- Attach gage to #1 gage mounting bracket with #11 machine screws. Orient the bracket so the two 3/16" vent clearance holes are toward the top of the gage. Install both #7 bleed fittings in remaining gage ports.
- The #8 manifold bracket is now fastened to the case with #15 machine screws and #16 hex nuts. Insert machine screws from back of case.
- Lower completed gage/manifold assembly into case making sure that both "PROC" ports of manifold are positioned in the manifold bracket.
- Align four holes in gage mounting bracket with matching holes in case and secure with #15 machine screws and #16 hex nuts. Screws must be inserted from back of case.
- Make sure all fittings and fasteners are secure. Press #18 plastic plugs into holes in back of case.
- Hoses are connected to completed assembly with #22 adapters installed in #6 elbows. If danger of dirt or other foreign matter entering gage exists, we recommend use of optional A-391 in line filter between these fittings. The two #21 adapters are for connecting opposite ends of hoses to pressure source. Loosely coil the hoses around the gage assembly for storage.

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