

Converting a Model 7050 Mk I membrane dehydrator into a 6995 Mk II

Parts required for conversion.

- Inlet manifold assembly, 7051-G502, 1 each
- Outlet manifold assembly, 7084-G502, 1 each
- Purge manifold assembly, 7085-G502, 1 each
- Instrument panel assembly, 7038-G504, 1 each (includes 1 each tubing sections 7077-G514, 7077-G506, and 7077-G501 packed separately)
- Membrane module, 7001-G501, 4 each
- Hold-down clamp, 7076-01, 4 each
- Mounting saddle, 7075-G501, 8 each
- U-bolt, 7142-01, 16 each
- Nameplates, 7073-28, 7073-29 and 7073-30, 1 each
- Miscellaneous hardware, O-rings, etc.

I. Secure and tag the dehydrator out.

- a. Close the external inlet and outlet valves. This stops air flow through the dehydrator.
- b. Turn the power-on switch OFF. This stops electric power to the humidity alarm system. The unit is now turned off.

WARNING

The dehydrator operates on 115 VAC. This voltage can kill or injure. When performing repairs, lock and tag out the unit. Work on an energized electrical system should be performed only by a qualified electrician.

- c. Open and tag out the external electrical disconnect.

WARNING

Failure to properly depressurize the dehydrator air system may result in personal injury or death.

- d. Close the inlet and outlet air isolation valves, external to the unit. Air pressure will bleed off through the purge vents. To prevent trapping air pressure inside the unit, wait until the sound of escaping air has stopped and the pressure gauge reads zero before proceeding.
- e. Tag the air isolation valves to prevent accidental re-pressurization.

II. Remove the piping components from the 7050 (Figure 1).

- a. Disconnect the inlet piping assembly (Figure 1, 1) from the top of the membrane element (2).
- b. Disconnect the outlet manifold assembly (3) from the bottom front of the membrane element.
- c. Disconnect the purge tube assembly (4) from the bottom rear of the membrane element.
- d. Disconnect the union (5) connecting the purge tap to the outlet manifold assembly. Disconnect the outlet union (6) Remove the two pipe clamps (7) securing the outlet manifold to the frame. Remove the outlet manifold.

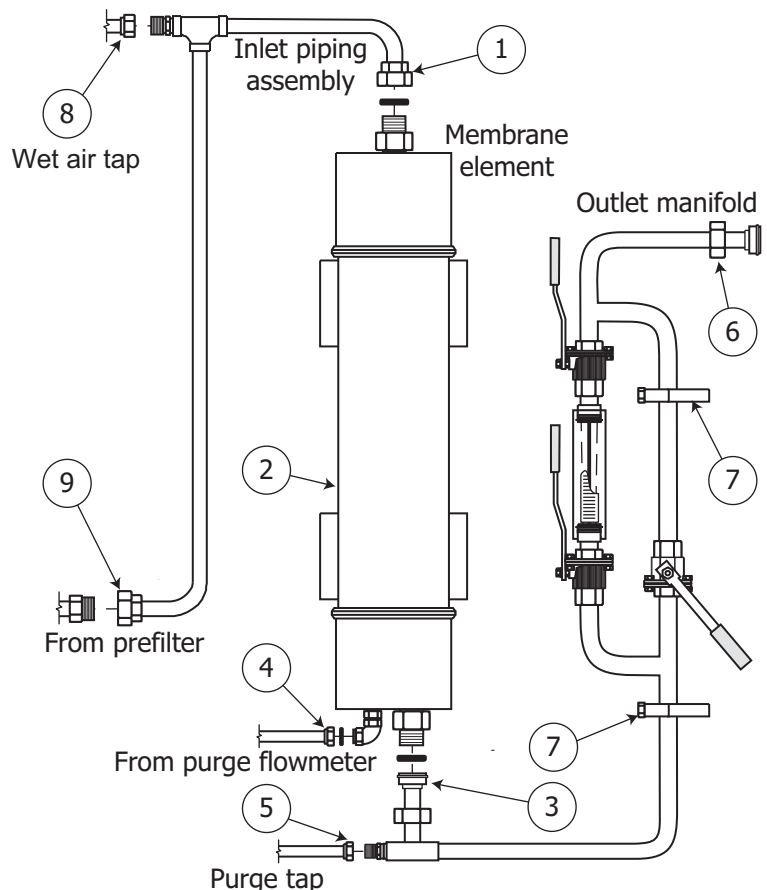


Figure 1. Model 7050 piping components

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- e. Disconnect the wet air tap union (8). Disconnect the union (9) connecting the inlet piping assembly to the prefilter outlet. Remove the inlet piping assembly.

III. Remove the membrane element from the 7050 (Figure 2).

- a. Remove the bolts (1) securing the membrane element (2) to its mounting bracket (3) and remove the membrane element.
- b. Remove the bolts (4) securing the mounting bracket to the frame members (5) and remove the bracket from the unit.

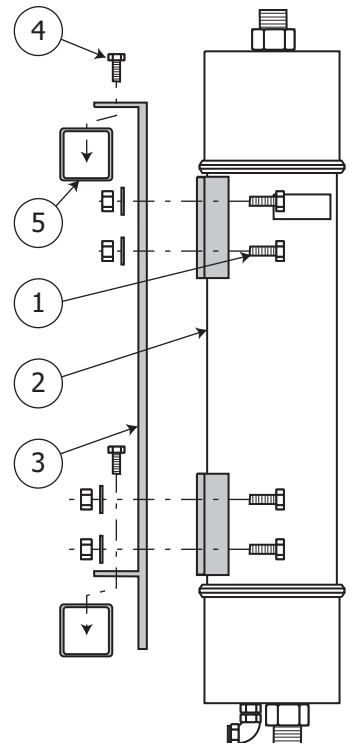


Figure 2. Model 7050 membrane installation

IV. Replace the instrument panel and related tubing (Figure 3).

- a. The pressure regulator is mounted on the frame behind the instrument panel. At the pressure regulator, disconnect the tubing section from the purge flowmeter.
- b. At the tee on the back of the instrument panel, disconnect and remove the purge tap tubing section.
- c. At the calibration flowmeter inlet, disconnect and remove the wet air tap tubing section.
- d. Remove the twelve bolts securing the instrument panel to the frame. Remove the instrument panel.
- e. Install the new instrument panel in place on the frame.

CAUTION

When replacing or reconnecting tubing or piping, always replace the O-rings in the fittings and unions and reinstall the O-ring retainers in the unions.

- f. Install tubing section 7077-G514 in place of the purge-flowmeter-to-regulator section removed in step a.
- g. Install tubing section 7077-G506 in place of the purge tap section removed in step b.
- h. Install tubing section 7077-G501 in place of the wet air tap section removed in step c.

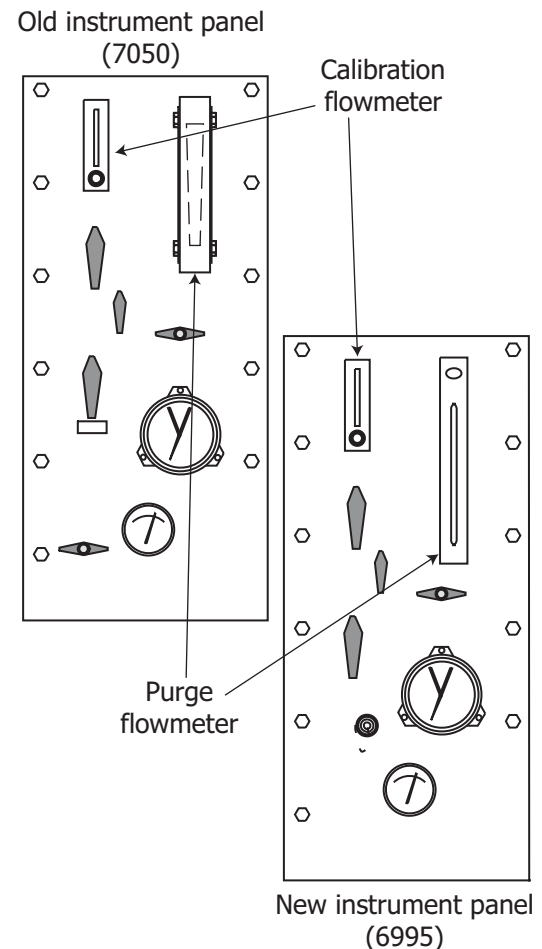


Figure 3. Instrument panels, 7050 and 6995

V. Install the new membranes (Figure 4).

- Install the eight mounting saddles (1) on the frame members.

NOTE

Be sure to install the membranes right-side-up, with the single fitting in the center top and two fittings at the bottom sides.

- Install the four membrane elements (2) on the mounting saddles. Secure them in place using the U-bolts (3), but do not tighten the clamps yet.
- Install the four hold-down clamps (4) loosely against the tops of the membrane elements.

VI. Install the new piping (Figure 5).

- Connect the purge tubing (1) to the fittings at the rear of the membrane elements (2).
- Install the new inlet manifold (3). Connect the union (4) from the prefilter and the wet air tap union (5).
- Connect the inlet manifold tubing unions to the fittings at the membrane inlets.
- Install the new outlet manifold (7) in the frame. Install the pipe clamps (8) but do not tighten them yet.
- Connect the outlet manifold tubing unions to the fittings at the membrane outlets.
- Connect the purge tap tubing (8) to the outlet manifold.

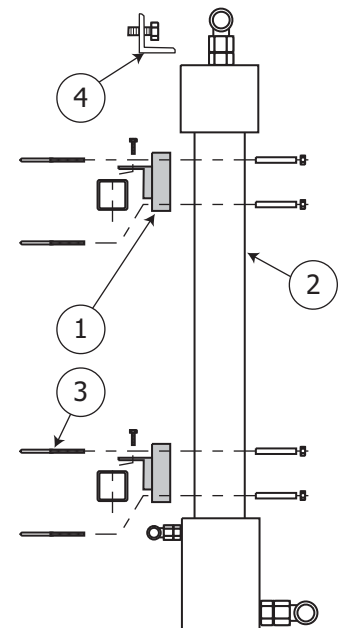


Figure 4. 6995 membrane element installation

VII. Tighten it up (Figures 4 and 5).

- Tighten the U-bolts (Figure 4, 3) securing the membrane elements to the frame.
- Tighten the hold-down clamps (Figure 4, 4) securely against the tops of the membrane elements.
- Tighten the pipe clamps (Figure 5, 7) securing the outlet manifold to the frame.
- Check all other connections for tightness.

VIII. Replace the nameplates.

- Remove the three nameplates by tapping the drive screws out from the back.
- Install the new nameplates, using the new drive screws.

IX. Test the conversion.

NOTE

Because of the membrane purge flow, the unit will not hold pressure hydrostatically and must be leak-tested with flow present.

- Pressure-test during initial operation by checking all connections, using bubble soap solution.

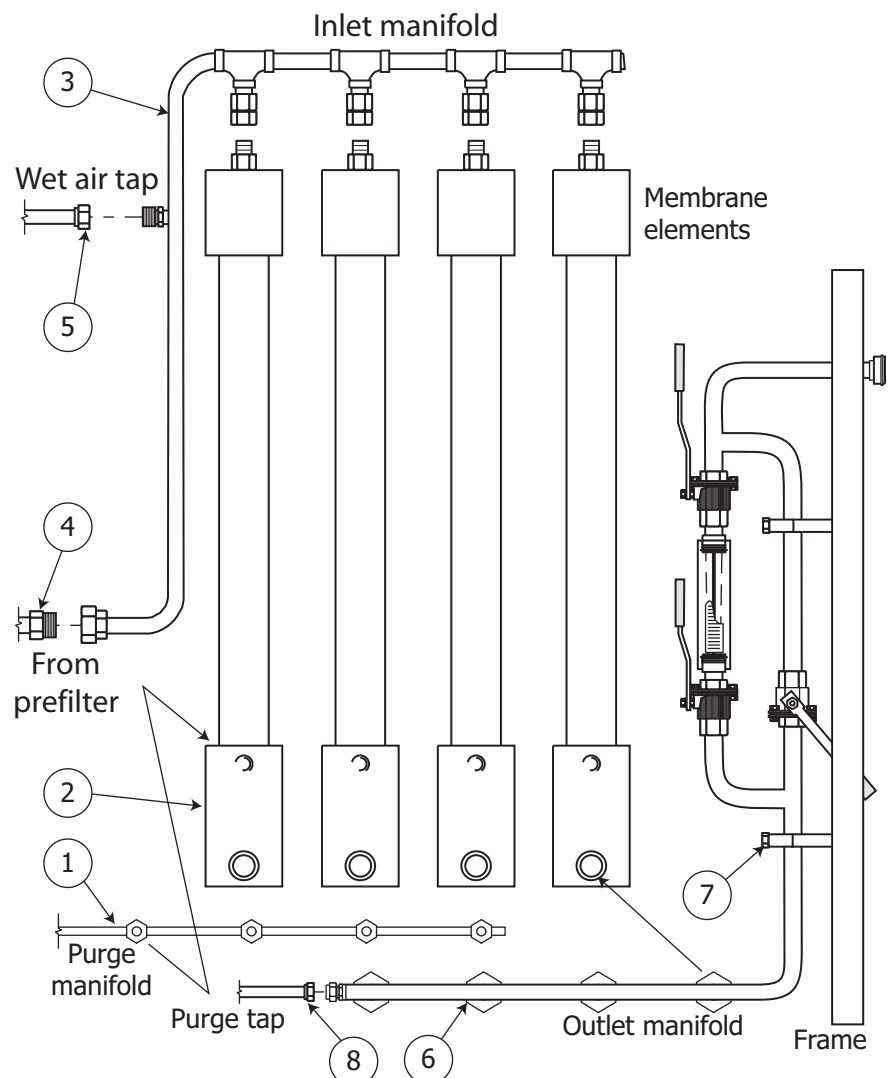


Figure 5. 6995 piping components