

MI-100 Electronic Trap Seal Primer Installation Instructions



DESCRIPTION: The MI-100 is a pre-assembled electronic trap seal primer programmed to maintain the water seal of up to 35 floor drain traps. It is factory programmed to operate at pre-set flush time intervals and can be modified relative to the site condition or custom requirements. The MI-100 is manufactured with a BEECO vacuum breaker, is easy to install and is maintenance free. Typical installations are schools, hospitals, laboratories, stadiums, bathrooms, manufacturing facilities and food processing facilities. The MI-100 meets LEED credit 3.2 and 5.2 for water reduction and regional material usage.

APPROVALS: The MI-100 Series is tested and certified to the ASSE 1044 electronic trap seal primer Standard and listed with I.A.P.M.O. MIFAB can manufacture it with either 24 VDC, 120 VAC or 220 VAC electrical connections.

INSTALLATION GUIDELINES:

- 1) Properly mount the MI-100 to the wall with # 14 wood or metal screws. It must be level and square. The MI-100 should be secured between wall studs or on the finished wall as close as possible to the drains being serviced.
- 2) The MI-100 is supplied with exterior mounting flanges for flush to the wall installations. For surface mount installations, remove the exterior mounting flanges and use the holes in the back of the cabinet to secure it to the wall.
- 3) The MI-100 must be installed a minimum of 12" above the highest drain being served. Note that the MI-100 should not be considered a pressure feed trap priming system. The manifold within the MI-100 must always be installed so that it is higher than the floor drain traps that it serves. The supply lines from the manifold to the floor drain traps should always be sloped to ensure proper water flow from the manifold to the floor drain traps. The MI-100 can be installed up to 100 feet away from the drains they serve as long as the MI-100 is installed high enough so that there is enough slope from the MI-100 to the drains to ensure water flow.
- 4) Properly connect the electric and water supply lines by following local codes and guidelines. The water supply should be connected to the 1/2" copper tube located on the top of the MI-100. Connect the trap primer supply lines to the manifold in the MI-100. The black wire is "hot", the white wire is "neutral" and the green wire is "ground". Note that the MI-100-24VDC model is always supplied with a 24 volt converter plug that plugs directly into a 120 volt wall outlet.

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- 5) Connect either 3/8" (3/8" I.D., 1/2" O.D. tube) or 1/2" (1/2" I.D., 5/8" O.D. pipe) water supply lines to the manifold connections (depending on whether the -500 (3/8") or -625 (1/2") manifold connections are chosen. Any unused connection ports of the manifold should be capped off. To do this, remove the entire compression connection from the underside of the manifold and then thread a 1/2" M.I.P. plug into the female threaded opening in the manifold.
- 6) Ensure that the water supply (with a minimum of 20 psig) is connected and then turn on power to the device. Ensure that the ball valve is open. The MI-100 will then cycle for a half second. Press the Test Button to repeatedly prime the unit. The Test Button may need to be pressed multiple times in order to have water reach all of the drains. Observe for any leaks within the MI-100 piping system. Ensure that all lines are free of debris.

TIMER ADJUSTMENT:

The pre-set timer operates a normally closed stainless steel solenoid valve. The timer consists of two adjustments. The "ON" time - this is the amount of time in between flow cycles and is adjustable from 1 to 8 hours. The "OFF" time - this is the amount of time that the unit is flowing water to the traps - and is adjustable from 1/2 to 2 seconds. The MI-100-5 and MI-100-10 models are factory set to turn the stainless steel solenoid valve "ON" every eight hours for a one half second. The MI-100-15 and MI-100-20 models are factory set to turn the stainless steel solenoid valve on every eight hours for one second and the MI-100-25, MI-100-30 and MI-100-35 models are factory set to turn the stainless steel solenoid valve on every eight hours for two seconds. MIFAB estimates that when the line pressure is 40 p.s.i., 12 ounces of water will flow from the MI-100 manifold system for every half second that the stainless steel solenoid valve is on. Note that cold climate installations (meat lockers and cold storage areas) have an increased rate of evaporation than temperate areas and will therefore need more water flow to the floor drain traps to maintain the water seal. These settings can be adjusted relative to the amount of water evaporation in the floor drain traps to ensure that there is a constant water seal in the floor drain traps.

CAUTION: When using the MI-100 electronic trap seal primer, basic precautions should always be followed:

- 1) Read all of the instructions before installing the MI-100.
- 2) Do not contact moving parts.
- 3) Only use the parts recommended or sold by MIFAB.
- 4) Do not use outdoors.
- 5) To disconnect, remove the plug from the outlet. Do not unplug by pulling on the cord. To unplug, grasp the plug, not the cord. Unplug from the outlet when not in use and before servicing or cleaning the MI-100. Do not install or operate the MI-100 with a damaged cord or plug; or after the MI-100 malfunctions or is dropped or damaged in any way. If you are experiencing issues, contact your local MIFAB representative.
- 6) For hard wired connections, disconnect the power when the MI-100 is not in use and before servicing or cleaning.
- 7) The MI-100 must be connected to a grounded metal, permanent wiring system; or an equipment grounding conductor must be run with the circuit conductors and be connected to the equipment grounding terminal or lead on the MI-100.