



UNPACKING AND SETTING UP THE E-Z FLOW GEN IV FOAM-IN-PLACE SYSTEM

These brief instructions will help you to quickly and safely get started using your new E-Z Flow system. **Please read all instructions completely before beginning, and especially before operating the system.**

Unpacking

1. Carefully remove all items from the shipping container. Be careful not to kink the internally heated hoses!
2. Open the Controller unit, and visually inspect the connections to ensure that none came loose during shipment. Then close the Controller unit.
3. Check contents of package against Packing List. A complete system will consist of:
 - Electronic Controller Unit
 - Two Heated Hose Assemblies, with Heater Blocks
 - Dispensing Gun with one Cartridge

Other configurations, or individual components, may have been ordered. Please report any discrepancies immediately.

Setting Up The E-Z Flow System

NOTE: Use Teflon tape to prevent leaks on all threaded fittings except compression fittings (See Below).

1. Install Controller unit on a convenient vertical surface, at eye level. Choose a place which allows easy access, and proximity to where the Heater Blocks and chemical containers will be.
2. For units using Drum Pumps, press the Filter Screen onto bottom of each Pump. If not a press fit, use some tape to add to diameter of bottom of Pump, until the Filter Screen is a press fit.
3. If pumps are marked RED and BLUE, drop RED pump into “A” drum, and BLUE pump into “B” drum. If one pump has a Bubbler attachment (see Bubbler Instructions), it must go into the “B” drum. If pumps are new and are not marked, they can go into either drum; however, once a pump is introduced into one chemical, it must NEVER be used in the other chemical!
4. Connect the BLUE (Resin) Heater Block to the Drum Pump or pressure vessel containing “B” chemical (resin), using the 1/2” NPT female swivel fitting on the Heater Block.
5. Connect the RED (Isocyanate) Heater Block to the Drum Pump or pressure vessel containing “A” chemical (Isocyanate), using the 1/2” NPT female swivel fitting on the Heater Block.
6. At the bottom of the Controller unit, there are two cables with connectors, one marked RED, the other BLUE. Attach these connectors to the mating connectors on the corresponding Heater Blocks. The Heater Blocks are marked with an “A” for RED and a “B” for BLUE.
7. Connect a compressed airline to the adapt or provided on the back of the Dispensing Gun. Line pressure should be 90-110 PSI after following Steps 9 and 10 A-D (below).



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8. Attach the end of the BLUE hose (farthest from Heater Block) to the RIGHT fitting of the Dispensing Gun, behind the BLUE knob marked “B”. Attach the end of the RED hose to the LEFT fitting of the Gun, behind the RED knob marked “A”. Tighten fittings. These are compression fittings, and do not need Teflon tape.
9. Pressurize hoses TEMPORARILY to about 20 PSI, by applying pressure to pumps or tanks. After hoses are full, increase air pressure to about 100 PSI.

NOTE: These steps are *VERY IMPORTANT!* If the air is not properly purged from the system, per Steps A-D below, the Heater can fail, and your warranty for the Heater will be voided.

10. Prior to dispensing chemicals:
 - A. Turn both Flow Control Valves on the Dispensing Gun to the “OFF” position.
 - B. Check to insure that the Cartridge Holddown Knob is tight, and that the Cartridge is properly seated, with no gaps between the Cartridge and the Gun.
 - C. Remove the “A” Filter Nut from front of Dispensing Gun. With Filter Nut removed, turn the “A” (RED) Flow Control Valve on the Dispensing Gun to the “ON” position, and bleed all air from the line, until “A” chemical is observed. Note that a clear liquid may precede the “A” chemical; this clear liquid is non-reactive with either the “A” or “B” chemical. Once all air is purged from the line, CLOSE the “A” Flow Control Valve and replace the “A” Filter Nut, making sure the Filter Screen and O-Ring are in place, and tighten.
 - D. Repeat this procedure (Step C) with the “B” side. Replace “B” Filter Nut, making sure the Filter Screen and O-Ring are in place, and tighten.
 - E. Make sure air pressure to pumps is approx. 100 PSI (plus or minus 10-15 PSI). The pumps will produce double the pressure of the input air, or approx. 200 PSI fluid pressure.
 - F. Connect the Controller unit to a power source, if this has not already been done. The 110V unit may be plugged into any standard wall outlet. The 220V unit comes with an L6-30 plug; the power cable can be re-terminated as desired, or wired directly into a power source, by a qualified electrician.
 - G. Connect the two umbilical cables (under the Controller) to the corresponding Heater Connectors (on the Heater Blocks), red to red, blue to blue.
 - H. Turn Controller unit’s switch to “ON”. You will see a “**PUMPS ACTIVATED?**” prompt, asking if the pumps are activated (if the compressed air is flowing to the pumps). Check to make sure the air is connected to the pumps, then press “YES” (the square). You will then see the set and actual line temperatures. The factory temperature settings for the Heated Hose Assemblies are 135 degrees F for the “A” hose, and 155 degrees F for the “B” hose. To change these settings, please refer to the separate GEN IV Controller Unit Instructions contained in this package.
 - I. Wait for the indicated temperature to reach the desired level before attempting to dispense chemical.

You should now be ready to dispense the chemical. With the Dispensing Gun aimed in a safe direction, preferably into a waste container for the first test, squeeze the trigger and allow a stream of chemical to emerge. If the mixture is not satisfactory, please review these instructions, or contact E-Z Flow Technical Assistance at (858) 279-FLOW (858-279-3569).



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Routine Operation

Once per week, or more often for heavy use:

1. Check that both Flow Control Valves on the Dispensing Gun are in the “OFF” position.
2. Remove Filter Nuts, and clean and inspect Filter Screens.
3. Loosen and remove Cartridge Knob (underneath Gun) and remove Cartridge.
4. Inspect ports of Cartridge, and clean with solvent and cotton swab, or “Slide” spray port cleaner.
5. Clean passage between Filter Well and Cartridge, with E-Z Flow provided cleaners, or pipe cleaners. Use a different cleaner for each side!
6. Clean the “saddle” where Cartridge rests, as needed. This area should be kept clean, so Cartridge can seat properly.
7. Replace small white O-Rings (E-Z Flow part #2101).
8. Replace Cartridge and tighten with Cartridge Knob.
9. Replace and tighten both Filter Nuts, making sure Filter Screens and O-Rings are in place. **Be sure to replace the Filter Nuts on the same sides they came from!**
10. Turn on air pressure and make sure hoses are pressurized.
11. Turn both Flow Control Valves on the Dispensing Gun to the “ON” position.
12. Turn on power to the Controller Unit, and wait for indicated temperatures to come up to correct levels.
13. System should now be dispensing properly.

NOTE: If the foam is the wrong color (too dark or too white), or does not rise properly, or is “crunchy” or sticky, it is OFF RATIO. The most common reason for this is a clogged Cartridge. There is probably something in one of the Cartridge ports causing a partial or complete blockage of one side.

In case of a clogged Cartridge:

- A. Turn off Flow Control Valves
- B. Pull trigger to retract Valving Rod, and disconnect the compressed air supply
- C. Remove Cartridge Holddown Knob
- D. Lift out Cartridge with valving rod in open position
- E. Blow compressed air through nozzle of Cartridge, to dislodge clog. Check to make sure air is flowing equally through both ports
- F. Check the small white Teflon O-Rings between the Cartridge and the Gun; replace if necessary
- G. Flush surfaces of Gun Block with solvent, and remove any chemical buildup
- H. Replace Cartridge
- I. Replace and tighten Cartridge Holddown Knob
- J. Reconnect air line
- K. Turn on Flow Control Valves
- L. Resume dispensing chemical



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WARNING: NEVER turn on the Controller unit, or apply power to the Heated Hose Assemblies, when Hoses are empty (unpressurized). Hoses **MUST BE FULL** and pressurized to operate! An empty or partially full Hose Assembly can cause failure or damage of Heater. Be sure input air pressure is 90-110 PSI. (If using pressurized cylinders (instead of pumps), be sure pressure is set at 150-200 PSI.) Also, do not set up the Hoses with loops that allow pockets of air to develop. A smooth curve, or suspension from a hose hanger, is best.

WHEN CHANGING CHEMICAL DRUMS: Any time a Drum Pump is removed from the chemical, air is introduced to the system. When changing drums, or if the Pump is removed for any reason, after the Pump is placed in the proper chemical, follow Step 10 above to purge air from the line **BEFORE** turning power back on.