



UNPACKING

Please open and inspect your package upon receipt. Your package was packed with great care and all the necessary packing materials to arrive to you undamaged. If you do find an item that is broken or damaged, you must contact the delivering carrier to report the claim.

Quick Start Guide Assembled Units

These instructions contain the steps and best practices H.E. Anderson Company recommends to install and use assembled J Series Ratio:Feeder® Injection Systems.

GETTING TECHNICAL ASSISTANCE

The H.E. Anderson Company is dedicated to assisting our customers with installation and use of our products. Our technical staff are available each weekday from 8:30am to 4:30pm central time. You may call us toll free at **1-800-331-9620** from anywhere in the U.S.A. and Canada. If no one is available, we will promptly return your call.

Before you call, review this manual. You may find the answer to your question here. But if not, reviewing the manual will help us to help you.

If you need an additional owners manual for **any** H.E. Anderson Company product, please visit our website at <http://heanderson.com/manuals.php>

Before returning items for repair or credit, please fill out, print and enclose the Return Information Form, on our website at <http://heanderson.com/return.php>, with your return. Please ship items to:

H.E. Anderson Company
2025 Anderson Drive
Muskogee, OK 74403



H.E. Anderson
COMPANY



www.heanderson.com
Phone 1-800-331-9620

Installation

Situating and removing the unit from the crate

1. Situate unit in crate close to where it will be installed.
2. Remove unit from crate.
3. If wall mount unit, install onto wall. If unit is designed to sit on floor, leave at least 4 inches between the wall and the unit.
4. Ensure the plastic heads on the pumpers have not become loose during shipping. Tighten the screws if they are loose.
5. For questions regarding components such as the J Controller, pump heads, pilot valve, and monitors, please refer to specific manuals found at <http://heanderson.com/manuals.php>





Plumbing and installation

6. Installing the injector unit in a bypass configuration is highly recommended. This allows the unit to be isolated when is not in use or for maintenance. See drawings in Appendix A for more installation information.
7. A water hammer arrestor, or in some cases a captive air tank, is recommended to be installed downstream of the unit as close to the source of potential water hammer as possible. This reduces potential of damage to the unit and plumbing fittings from water hammer.
8. Install a check valve upstream of the unit. Consider using unions on each side of check valve so valve can be serviced or replaced if necessary. Check local codes for backflow prevention requirements and modify the installation accordingly.
9. Install the water supply line into the inlet valve socket. Ensure there are at least 10 diameters, or about 15 inches, of straight pipe upstream of the meter. Refer to the [Insertion Meter Manual](#) for more information on the insertion meter. Use the proper PVC primer and glue for pipe size and follow the manufacturer's instructions. A "heavy bodied" PVC glue is recommended for larger pipe sizes. Refer to drawing in appendix A for help locating the inlet valve.
10. Install piping to the outlet valve.
11.  Position chemical storage tanks close to the injector unit. Excessively long suction tubes can decrease the amount of chemical the unit is able to inject. Suction lines should be 10 feet long or less.
12.  Ensure chemical tanks are in a safe area and follow any safety precautions provided by the chemical supplier/manufacturer. This is especially important when handling acids. Chemical tanks holding dangerous or corrosive chemicals should be placed in an appropriate catch container in case of tank leaks or spills.
13. If chemical suction tubes are already installed, uncoil tubes and place the foot valve into the appropriate chemical tank. If no chemical tubes are installed, locate appropriate tubing for each pumper. Cut proper length of tubing and connect tubing from each pumper's suction valve to a foot valve/suction fitting then place each foot valve/suction fitting into its respective chemical tank.
14. In unit is powered by water pressure, ensure hosebarbs are installed into each pilot valve's drain hole. Using red 3/4" tubing, connect each pilot valve's hosebarb to a drain. Ensure water is able to drain freely from from the waste water hose and there are no obstructions or hose kinks restricting flow. A blocked waste water hose will keep the pumpers from functioning properly. If the suction tubes or red waste tube is excessively long, they can be shortened to improve performance and longevity.
15. If unit is powered with compressed air, ensure the air mufflers are installed into each pilot valves' drain hole.
16. If using compressed air to power pumpers, connect manifold(s) to the source of compressed air.


Putting the Unit Into Service

17. Close all the valves on the unit including the inlet valve, outlet valve, three probe loop valves, manifold water supply valve and bypass valve if one was installed. Closing the probe loop valves will keep water from flowing out of the probe tees in case the pH probe was shipped separately.
18. Carefully supply water to the unit making sure all the valves are still closed.
19. Open the outlet valve completely.
20. Open bypass valve at the top of the probe loop making sure to leave other two probe loop isolation valves closed in case probes are not installed in probe tees.
21. Slowly open the inlet valve enough to let water start flowing into the system. Do not fully open the inlet valve until the unit has filled with water. This may take several minute due to the blend tank.
22. Ensure the upstream valve is completely open during operation. If flow must be regulated by partially closing a valve, use the downstream outlet valve. Partially closing the upstream valve can cause turbulence which interferes with the water meter's ability to properly measure water flow.

Preparing the pH Probe

23.  Do not remove the 'U' pin for any probes while the water line is under pressure.
24. The pH Monitor must be calibrated to the electrode (probe) before use. If unit has water supplied calibrate pH probe at this time. Readings will not be correct if pH probes have not been calibrated. Note: EC and temperature probes ship calibrated from the factory.
25. For complete instructions on the pH Monitor, refer to the pH monitor manual <http://heanderson.com/manuals.php>.
26.  Do not allow the pH probes to become dry. Do not allow the pH probe to freeze. Either if these conditions will damage the pH probe and require replacement.
27.  Do not perform these steps until the unit is ready to be put into service because the pH probe cannot be allowed to dry out.
28. If the pH probe was shipped separately to avoid freezing temperatures, connect pH probe to pH signal converter box using the BNC connector.
29. Remove the rubber cap before installing the probe into the line. If the system was shipped with the probe in the line, remove the pH probe, remove the rubber cap and reinstall the probe into the probe tee.
30.  Make sure the 'U' pin is properly installed. Improperly installing the probes or plugs can cause a dangerous situation and possible personal injury when the unit is under pressure.
31. Fill probe loop with water immediately after installing pH probe(s) into probe loop.

Priming the Pumpers

32. If standard capacity pumper (P1, P2, A3, A10, A20 etc.) attach a piece of clear tube to the drain port on the injection point fitting. Place the free end of tube in an appropriate container to collect chemical that will drain out while priming the pumpers.
33. If high capacity pumper (H4, H8), attach a piece of clear tube to the drain port on the check valve assembly on back of pumper.
34. Place the free end of tubes in an appropriate container to collect chemical that will drain out while priming the pumpers.
35. Do not mix incompatible chemicals. Each pump may need its own catch container.
36. Provide power to controller on unit.
37. Ensure the manifold water or air supply valve is connected to proper source.
38. Open appropriate air or water supply valve.
39.  If manifold is equipped with both air and water supplies, ensure only one is open at any point in time. Opening both at the same time could lead to injury or damage to air compressor or plumbing.
40. If unit is powered using water, the pressure gauge on the manifold must read at least 30 psi for the pumpers to function properly.
41. If unit is powered with compressed air, gauge on manifold must read at water line pressure or higher. Ideally, compressed air powered manifolds are set to 10 PSI above water line pressure.
42. Ensure all pump head dials are set to '10' for priming procedure.
43. For type 'A' manifolds, ensure the pumper shutoff valves are open on the pumper being primed.
44. See Appendix B for priming procedures on different controls.
45. The pumper has been primed when chemical can be seen flowing through the clear tubing on the prime vent. Close the prime vent after the pumper has been primed.
46. After all the pumpers have been primed, the system should be ready for use.

Tips and Best Practices

- Open and close valves slowly to reduce damage caused by water hammer.
- Keeping the unit clean and fixing leaks promptly will make the unit much easier to service and increase time between repairs.
- Pumpers can be individually turned off for maintenance or when not in use by using the pumper shutoff valves.
- Always use the pumper shutoff valves to turn off pumpers as opposed to turning the dial to the '0' setting which can permanently compress the pump head's internal spring.
- Like most plumbing fittings, never let the unit freeze. Multiple parts of the injector system can be damaged if allowed to

freeze.

- Although the injector system is designed to withstand outdoor elements, systems installed outdoors and especially in direct sunlight will experience more wear when compared to systems installed indoors. If possible, install the unit indoors or erect some sort of cover to shield the unit from outdoor elements.

Appendix A Installation Diagrams

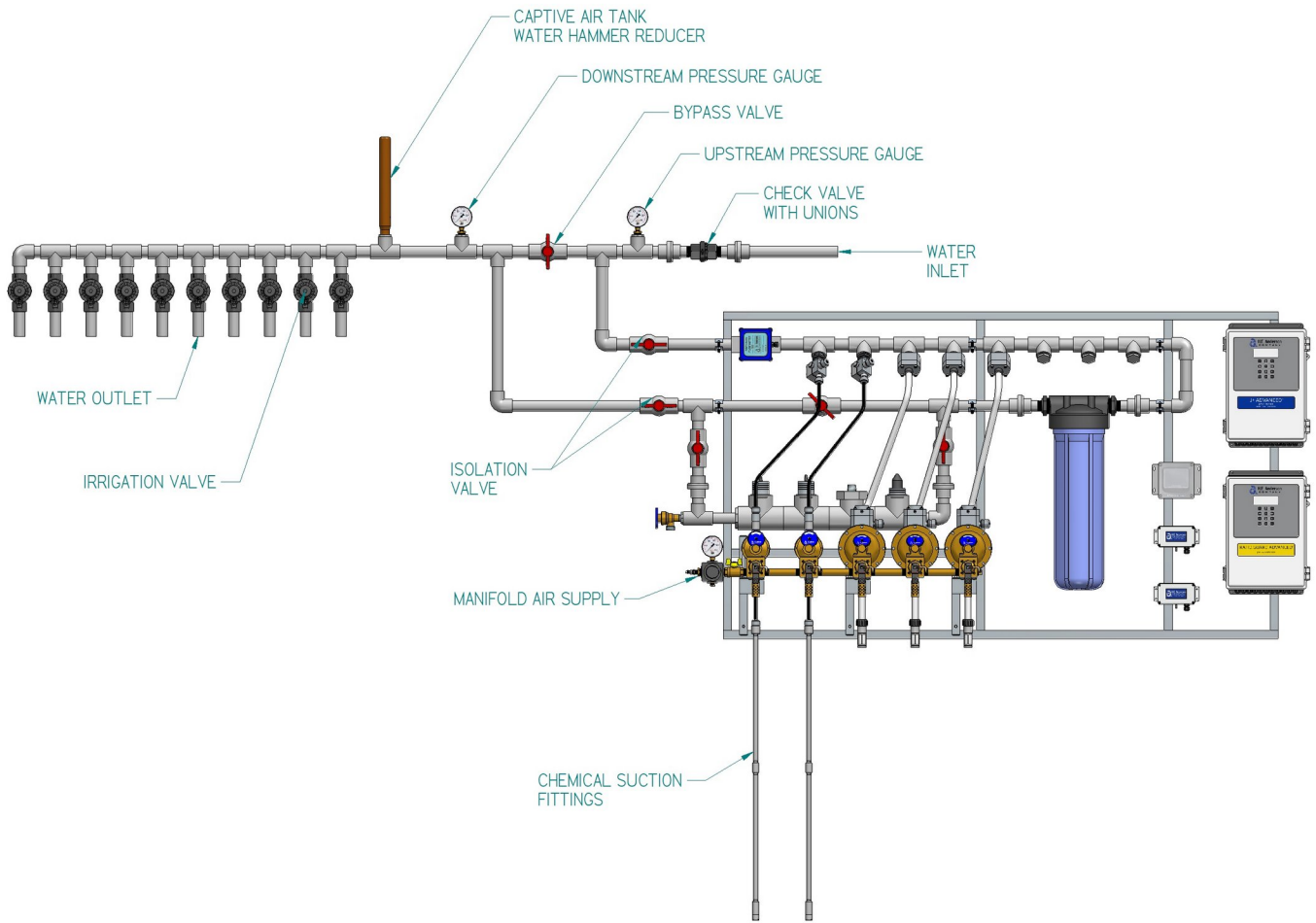


Figure 1: JA20D Installation Example

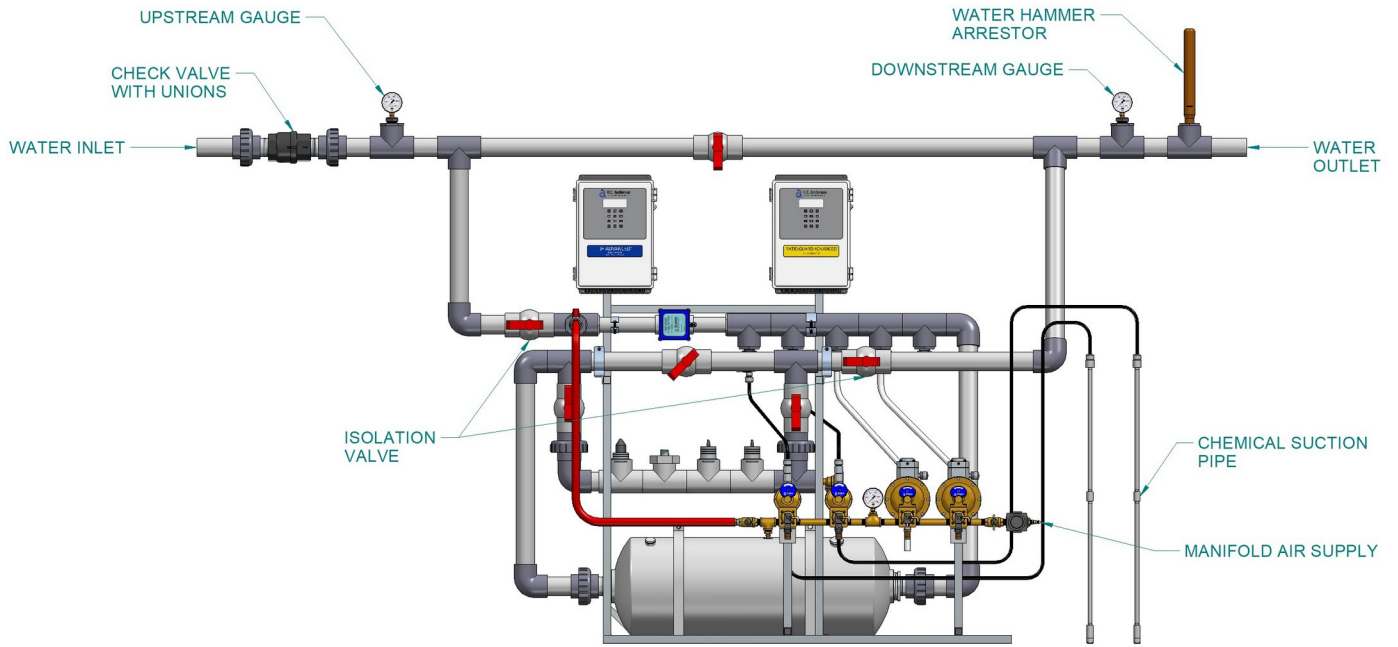


Figure 2: JA160D Installation Example

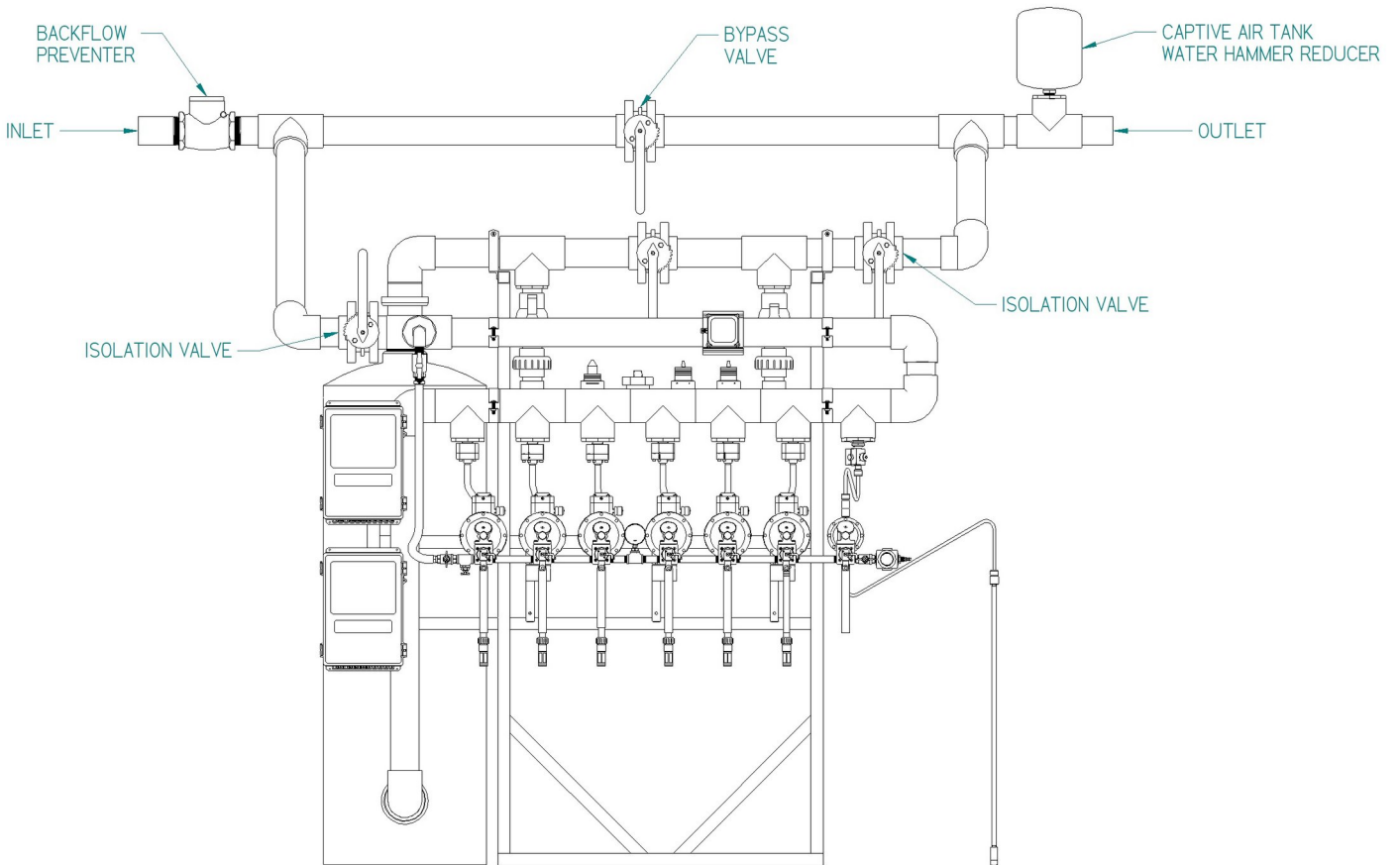


Figure 3: JA300D Installation Example

Appendix B

Priming Procedures for Controls

J+ Priming Procedure

1. Prime the pumpers using the pulse function on the J controller.
2. Press and hold both **↑** and **↓** together to put the unit into the manual pulse mode. The display will show **PULS** when it enters this mode.
3. While in pulse mode, pressing the **↑** key will pulse the first output; pressing the **↓** key will pulse the second output.
4. After a period of time if no key has been pressed, the unit will return to normal operation. Press the ENTER key to immediately resume normal operation.

J+ Advanced Priming Procedure

1. On the home screen, press the down arrow until 'PRIMING MODE' is displayed.
2. Use the left and right arrows to select the output to prime.
3. Press enter to prime the selected output. Pressing enter will cause the selected output to actuate several times.
4. Enter can be pressed again if one priming sequence was not enough to prime the pumper.