

Sioux Chief 655-D

Sioux Chief 655-D 1-inch Water Hammer Arrestor Instruction Manual

Model: 655-D | Brand: Sioux Chief

1. INTRODUCTION

The Sioux Chief 655-D 1-inch Water Hammer Arrestor is designed to eliminate the noise and potential damage caused by water hammer in plumbing systems. Water hammer occurs when a sudden change in water flow, such as a valve closing rapidly, creates a pressure surge that reverberates through the pipes. This device absorbs these pressure surges, protecting your plumbing and appliances.

2. SAFETY INFORMATION

Please read and understand all instructions before installation. Improper installation can lead to property damage or personal injury.

- Always turn off the main water supply before beginning any plumbing work.
- Wear appropriate personal protective equipment, including safety glasses and gloves.
- Ensure all connections are secure and leak-free before restoring water pressure.
- If you are unsure about any step, consult a qualified plumber.

3. PRODUCT OVERVIEW

The Sioux Chief 655-D is a compact, piston-type water hammer arrestor constructed from durable copper. It is designed for installation in residential and commercial plumbing systems to mitigate the effects of water hammer.



Figure 1: Sioux Chief 655-D 1-inch Water Hammer Arrestor. This image displays the copper body of the arrestor with its threaded connection point.

4. INSTALLATION INSTRUCTIONS

The 655-D water hammer arrestor should be installed as close as possible to the fixture or appliance causing the water hammer.

1. **Turn off Water Supply:** Locate and turn off the main water supply valve to the building or the specific area where the installation will occur.
2. **Drain Lines:** Open nearby faucets to drain water from the pipes and relieve pressure.
3. **Select Location:** Identify the pipe section where the water hammer is most prevalent. The arrestor should be installed on the branch line serving the fixture, typically within 6 to 18 inches of the valve.
4. **Cut Pipe:** Carefully cut a section of the pipe to accommodate the arrestor. Ensure clean, burr-free cuts.
5. **Prepare Connections:** Apply appropriate thread sealant (e.g., PTFE tape or pipe dope) to the male threads of the arrestor.
6. **Install Arrestor:** Thread the arrestor into the pipe fitting. For soldered connections, ensure the arrestor is not overheated, as this can damage internal components. For threaded connections, tighten securely but do not overtighten.
7. **Restore Water Supply:** Slowly turn the main water supply back on.
8. **Check for Leaks:** Inspect all connections for any signs of leaks. Tighten as necessary.
9. **Test System:** Operate the fixture or appliance that previously caused water hammer to confirm the issue is resolved.

Note: For optimal performance, multiple arrestors may be required in complex plumbing systems or for multiple problem fixtures.

5. OPERATING PRINCIPLE

The Sioux Chief 655-D operates passively. Inside the copper cylinder, a sealed air chamber is separated from the water by a piston. When a sudden pressure surge (water hammer) occurs, the piston moves, compressing the air in the chamber. This compression absorbs the shock wave, preventing it from traveling further through the plumbing system and eliminating the characteristic banging noise. Once the pressure normalizes, the piston returns to its original position.

6. MAINTENANCE

The Sioux Chief 655-D water hammer arrestor is designed to be maintenance-free under normal operating

conditions.

- **Periodic Inspection:** Periodically check the area around the arrestor for any signs of leaks.
- **System Flushing:** If water hammer symptoms return after a long period, it may indicate a need to flush the plumbing system or inspect other components. The arrestor itself typically does not require flushing or servicing.
- **Replacement:** In rare cases of internal component failure, the entire unit may need replacement.

7. TROUBLESHOOTING

If water hammer persists after installation, consider the following:

- **Incorrect Placement:** Ensure the arrestor is installed as close as possible to the source of the water hammer. Moving it closer can improve effectiveness.
- **Insufficient Capacity:** For larger systems or multiple fixtures, a single arrestor may not be sufficient. Consider installing additional arrestors at other problem points.
- **Other Plumbing Issues:** Water hammer can sometimes be exacerbated by loose pipes, high water pressure, or faulty valves. Address these underlying issues if present.
- **Damaged Arrestor:** Although rare, an arrestor can fail. If the unit is suspected to be faulty, replacement may be necessary.

8. SPECIFICATIONS

Feature	Detail
Model Number	655-D
Brand	Sioux Chief
Product Type	Water Hammer Arrestor
Material	Copper
Item Weight	2 pounds
Package Dimensions	7 x 2 x 2 inches
Country of Origin	United States

9. WARRANTY AND SUPPORT

For specific warranty information regarding the Sioux Chief 655-D Water Hammer Arrestor, please refer to the documentation provided with your purchase or contact Sioux Chief directly.

For technical support or further assistance, please visit the official Sioux Chief website or contact their customer service department.