

AIRFLUSH™ DRAIN VALVE USER MANUAL

Installation, Flushing & Cleaning Instructions

By Sediment Buster®

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SECTION 1 — PRODUCT INFORMATION

Product Overview

The AirFlush™ Drain Valve combines a full-port water heater drain valve and sediment air cleaning system into a single permanently installed fixture.

The AirFlush™ Drain Valve remains installed on the water heater and allows users to flush, drain, rinse, and clean the tank using an integrated air injection system and full-port ball valve.

Its unique design and proprietary function helps remove sediment more effectively than traditional factory-installed drain valves while eliminating the need to repeatedly install and remove separate flushing equipment.

AirFlush™ Features

The AirFlush™ Drain Valve includes:

- Full-port ball valve for maximum water flow and sediment discharge.
- Air inlet compatible with any common air source including hand pump, CO2 Cartridge or Air Compressor
- Internal secondary check valve to prevent air or water backflow through the air inlet.
- Removable clear viewing extension for monitoring water flow and sediment discharge.
- Protective drain outlet cap tethered to removable handle for added safety
- Protective Air inlet valve cap
- Tag with QR code to instructions, warnings and disclaimers
- PTFE thread tape applied at installation
- CSA NSF/ANSI/CAN 372 certification

Package Contents

Your AirFlush™ Drain Valve package includes:

- AirFlush™ Drain Valve with full port and secondary check valve
- Valve Handle tethered by chain to Drain Valve Cap
- Detachable clear Viewing Extension
- Air Inlet Valve Cap
- PTFE thread tape
- Black Gaskets inside air valve cap, drain valve cap and clear viewing extension
- QR code on tag to instructions, warnings and disclaimers

Tools & Materials Required

The following tools and materials are recommended for installation and maintenance:

- AirFlush™ Drain Valve Package

Not Included:

- Adjustable wrench or pipe wrench
 - Full-port garden hose
 - Pneumatic inflator, hand pump, bicycle pump, CO₂ inflator, or air compressor
 - Towels or absorbent rags (recommended)
 - Shallow catch pan (recommended)
 - Protective safety eyewear (recommended)
 - Protective gloves (recommended)
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Important Safety Information

Read and understand these instructions before installing or servicing the AirFlush™ Drain Valve.

- Turn OFF electrical power or the gas supply before servicing, draining, or flushing a water heater.
- Water inside the tank is extremely HOT. Allow sufficient cooling before beginning maintenance including purging of hot water.
- Consult the water heater manufacturer's instructions before performing maintenance.
- Use only short bursts of compressed air.
- Maximum recommended tank air pressure is **80 PSI**.
- AirFlush™ is intended for residential and commercial water heater maintenance only.
- Inspect all threaded connections for leaks before returning the water heater to service.
- Protective eyewear and gloves are recommended during installation and maintenance.
- Consider a professional installation of drain valve on active water heater

SECTION 2 — INSTALLATION

The AirFlush™ Drain Valve may be installed under one of two conditions.

Choose the installation procedure that matches your water heater.

Installation Method A

Use this procedure when installing the AirFlush™ Drain Valve on:

- A new water heater before it is filled.
- An existing water heater that has already been completely drained.

Installation Method B

Use this procedure when replacing the existing drain valve on a working water heater that still contains water.

INSTALLATION METHOD A

Installing the AirFlush™ Drain Valve on a New or Empty Water Heater

Before You Begin

Verify the water heater is empty and not under pressure.

Confirm electrical power or the gas supply is turned OFF.

Inspect the AirFlush™ Drain Valve to ensure all components are present and undamaged.

Installation Procedure

Step 1

Locate the factory-installed drain valve.

If necessary, consult the water heater owner's manual for its location.

Step 2

Using an adjustable wrench or pipe wrench, rotate the existing drain valve counterclockwise and remove it from the tank.

Step 3

Inspect the threaded drain opening.

- Remove any debris or old thread sealant.
 - Verify the water heater internal threads are clean and undamaged.
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Step 4

Apply PTFE thread tape to the $\frac{3}{4}$ -inch NPT male threads of the AirFlush™ Drain Valve.

Wrap the tape in the direction of the threads so it remains in place during installation. Thread the tape on in the opposite “counterclockwise” rotation as you would thread the valve into the tank to avoid the tape from shedding off as you rotate the valve into the hole.

Step 5

If desired, apply pipe thread sealant over the PTFE tape or inside the water heater's female threads for added assurance of a water tight seal.

Step 6

Thread the AirFlush™ Drain Valve into the water heater by hand.

Continue tightening with a wrench until snug.

Orient the valve so the handle and air inlet are positioned on the upper side of the assembly for convenient access. Tighten to firm position.

Step 7

Verify the ball valve is fully CLOSED.

Step 8

Verify both protective caps are installed.

- Drain outlet cap
 - Air inlet valve cap
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Returning the Water Heater to Service

Step 9

Open hot water faucets and fill the water heater full until all water pressure is restored throughout the home.

Step 10

Leave hot water faucets open until all trapped air has been removed from the plumbing system and water flows normally. Then shut off water faucets.

Step 11

Inspect the AirFlush™ Drain Valve for leaks.

Tighten slightly if necessary.

Step 12

After confirming the tank is completely full and leak-free, restore electrical power or the gas supply.

Installation is complete.

INSTALLATION METHOD B

Installing the AirFlush™ Drain Valve on a Full Water Heater (Tank Contains Water)

Before You Begin

This installation is performed with the water heater full of water. Although the following procedure is designed to minimize water loss by creating an air lock inside the tank, **some water will escape when the factory drain valve is removed.**

Before beginning:

- Confirm electrical power or the gas supply is turned **OFF**.
- Turn **OFF** the cold-water supply to the water heater and allow water to cool.
- **Close all hot water faucets** throughout the building. Do **not** open any hot water valves during this procedure. Keeping the hot water system sealed helps create an air lock inside the tank, greatly reducing the amount of water that escapes.
- Place towels, a shallow pan, or other absorbent materials beneath the drain valve to catch the water that will leak during valve replacement.
- Inspect the AirFlush™ Drain Valve to ensure all components are present and undamaged.
- Apply thread tape to the AirFlush™ Drain Valve (and pipe dope if desired), so that the valve is ready to be installed quickly.

Important: The air lock will significantly reduce water flow, but it will **not completely stop it**. Work efficiently once the original drain valve has been removed. Consult a professional to install if desired. Install at own risk.

Installation Procedure

Step 1

Locate the factory-installed drain valve.

If necessary, consult the water heater owner's manual for its location.

Step 2

Verify the cold-water supply valve is fully **OFF** and that tank has been purged or time to cool.

Confirm that **all hot water faucets remain closed** throughout the building.

This sealed condition creates an air lock inside the tank that minimizes water discharge during installation.

Step 3

Place towels and a catch pan beneath the drain valve.

Apply PTFE thread tape to the $\frac{3}{4}$ -inch NPT male threads of the AirFlush™ Drain Valve.

Wrap the tape in the direction of the threads so it remains in place during installation. Thread the tape in the opposite (counterclockwise) direction from the direction the valve will be threaded into the tank to prevent the tape from bunching or peeling off during installation.

If desired, apply pipe thread sealant over the PTFE tape or inside the water heater's female threads for added assurance of a watertight seal.

Make sure the AirFlush™ Drain Valve is threaded with PTFE tape and a wrench within easy reach before removing the existing drain valve.

Step 4

Using an adjustable wrench or pipe wrench, carefully rotate the existing drain valve counterclockwise and remove it from the tank.

Expect some water to begin flowing from the opening. This is normal. If no water is coming out, continue installation as this means the tank is clogged.

Immediately proceed with installation of the AirFlush™ Drain Valve.

Step 5

Thread the AirFlush™ Drain Valve into the water heater by hand as quickly as practical.

Continue tightening with a wrench until snug.

Orient the valve so the handle and air inlet are positioned on the upper side of the assembly for convenient access.

Tighten securely.

Step 8

Verify the ball valve is fully **CLOSED**.

Step 9

Verify both protective caps are installed.

- Drain outlet cap
 - Air inlet valve cap
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Returning the Water Heater to Service

Step 10

Slowly reopen the cold-water supply valve to the water heater.

Step 11

Open several hot water faucets until any trapped air has been purged from the plumbing system and water flows normally.

Step 12

Inspect the AirFlush™ Drain Valve for leaks.

Tighten slightly if necessary.

Step 13

After confirming the installation is leak-free, restore electrical power or the gas supply.

Installation is complete.

Installation Tip

The air-lock method works because closing the cold-water supply and keeping every hot water faucet closed prevents air from entering the tank as water attempts to leave. Without a source of replacement air, only a relatively small amount of water will escape while the drain valve is exchanged. Because a perfect air lock cannot always be maintained, have towels and a catch pan in place before removing the original drain valve. This makes installation faster, cleaner, and minimizes water spillage.

SECTION 3 — ROUTINE TANK FLUSHING

About Routine Flushing

Routine flushing uses your home's water pressure to remove loose sediment from the bottom of the water heater while the tank remains full and pressurized. Periodic bursts of compressed air help loosen sediment deposits, create head pressure for improved water flow, and increase the overall effectiveness of the flushing process.

Routine flushing is recommended as part of your annual water heater maintenance. Water heaters supplied by hard water or well water will greatly benefit from more frequent flushing.

Before You Begin

Before starting the flushing procedure:

- Verify the AirFlush™ Drain Valve is securely installed.
- Leave the **cold-water supply ON**.
- Verify **all hot water faucets are CLOSED**.
- Confirm the water heater tank is full and operating normally.
- Remove the protective drain outlet cap.
- Install the clear viewing extension onto the AirFlush™ drain outlet.
- Attach a full-port garden hose to the clear viewing extension and route the hose to a suitable drain or outdoor discharge location.
- Connect an air source to the air inlet.

Compatible air sources include:

- Hand pump
- Bicycle pump
- CO₂ cartridge inflator
- Air compressor

UNDERSTANDING WHY

During routine flushing, the water heater remains full and pressurized. Household water pressure provides continuous flow through the drain valve while short bursts of compressed air loosen sediment from the bottom of the tank and help move it toward the full-port drain opening and adds a second point of agitation.

Routine Flushing Procedure

1. Open the AirFlush™ Ball Valve

Open the ball valve completely and verify water is flowing through the clear viewing extension.

Observe the initial water flow.

2. Evaluate Water Flow

If water is flowing normally, continue flushing.

If flow is weak, restricted, or stops:

- Close the AirFlush™ ball valve.
- Inject several short bursts of compressed air.
- Reopen the ball valve and verify flow has improved.

Repeat as necessary.

UNDERSTANDING WHY

Sediment can temporarily block the drain opening. Short bursts of compressed air help break apart these deposits and restore water flow.

3. Continue Flushing

Allow household water pressure to continue flushing the tank.

Periodically inject short bursts of compressed air while flushing.

The added air helps:

- Break apart sediment deposits.
- Agitate accumulated sediment on the bottom of the tank.
- Improve sediment removal.
- Create additional agitation inside the tank.
- Momentarily increase internal pressure (head pressure) to help move water and sediment through the full-port drain valve.
- Creates a siphon or push/pull effect that grabs and releases sediment clogs

WARNING

Use only short bursts of compressed air. Most homes rarely have internal water pressure greater than 80 PSI. It is recommended to keep tank pressure at around **80 PSI**. Note that pressure relief valves are built to release at around 150 PSI. Bursts of air from a compressor set higher than 80 PSI does not mean the tank will instantly fill with that pressure.

4. Monitor Flushing Progress

Observe water flow and sediment discharge through the clear viewing extension.

Continue flushing until:

- Water appears clean.

- Sediment discharge has substantially stopped.

✓ TIP

Heavily neglected water heaters may require several minutes of flushing before water clears.

5. Complete the Procedure

When flushing is complete:

- Close the AirFlush™ ball valve.
- Disconnect the garden hose.
- Remove the clear viewing extension.
- Install the drain outlet cap.
- Disconnect the air source.
- Install the air inlet valve cap.

Routine flushing is complete.

If Additional Cleaning Is Needed

The AirFlush™ Drain Valve provides a full-port opening directly into the water heater, allowing larger sediment particles to exit the tank more easily than many factory-installed drain valves.

If significant sediment remains after routine flushing, perform the **Drain, Rinse & Deep Cleaning Procedure** described in Section 4.

SECTION 4 — DRAIN, RINSE & DEEP CLEANING

About This Procedure

This procedure is intended for water heaters with heavy sediment accumulation or to drain tank.

Unlike routine flushing, this method completely drains the water heater and combines alternating water flow with compressed air to thoroughly loosen and remove stubborn sediment deposits.

Use this procedure when:

- Routine flushing no longer removes significant sediment.
- Heavy sediment buildup is suspected and maximum cleaning is desired
- The tank needs to be drained completely

Before You Begin

Before beginning:

- Turn **OFF** electrical power or the gas supply to the water heater.
- Remove the drain outlet cap.
- Install the clear viewing extension.
- Attach a full-port garden hose and route it to a suitable drain location.
- Connect an air source to the air inlet.
- Turn **OFF** the cold-water supply.
- Open one or more hot water faucets, preferably at a fixture located above or near the water heater.

UNDERSTANDING WHY

Opening a hot water faucet allows air to enter the plumbing system, relieving pressure inside the tank and allowing it to drain freely.

Step 1 — Drain the Tank

Open the AirFlush™ ball valve.

Allow the water heater to begin draining.

While the tank is draining, periodically inject several short bursts of compressed air.

The air bursts help:

- Break apart sediment blockages.
- Stir accumulated sediment.
- Improve drain performance.
- Keep sediment suspended in the water as it exits the tank.

Observe sediment discharge through the clear viewing extension.

Continue draining until the tank is empty.

Step 2 — Rinse & Deep Clean the Tank

Leave the AirFlush™ ball valve fully open.

Briefly turn the cold-water supply **ON**, then **OFF**.

As fresh water enters the tank, inject several short bursts of compressed air.

Repeat this process several times.

This creates agitation from two directions:

- Water entering through the dip tube.
- Air entering through the AirFlush™ air injection nozzle.

Together, these forces loosen sediment from the bottom of the tank and move it toward the drain opening.

Continue alternating water pulses and air bursts until:

- Water runs clean.
- Sediment discharge has substantially stopped.

✓ TIP

Several rinse cycles may be required on water heaters with years of accumulated sediment.

Step 3 — Return the Water Heater to Service

Close the AirFlush™ ball valve.

Disconnect the garden hose.

Remove the clear viewing extension.

Install the drain outlet cap.

Disconnect the air source.

Install the air inlet valve cap.

Turn **ON** the cold-water supply.

Leave one or more hot water faucets open until water flows normally from each fixture and all trapped air has been removed from the plumbing system.

Verify the water heater is completely full.

Inspect the AirFlush™ Drain Valve and all threaded connections for leaks.

Restore electrical power or the gas supply.

Deep cleaning is complete.

WARNING

Never restore electrical power to an electric water heater until the tank has completely filled with water and all trapped air has been purged from the plumbing system. Operating an electric or gas water heater with an empty or partially filled tank can permanently damage the heating elements.

Recommended Maintenance

For best performance, perform routine flushing at least once each year.

Water heaters supplied by hard water, well water, or systems with high mineral content may benefit from flushing every six months.

Deep cleaning should be performed whenever routine flushing no longer produces significant sediment removal or whenever heavy sediment accumulation is suspected.

Warnings:

Turn off electric power or gas supply of water heater before use.

Water in the tank is HOT. Allow enough time for water to cool before draining, flushing, or engaging the water from the tank.

Recommended max 80 PSI of tank pressure

For water heater tank drain valve use only. Do not use on tankless water heaters or on any other devices such as water spigots.

Always wear protective safety eyewear and gloves/gear.

Consult water heater manufacturers guide and instructions

Consult a plumber or professional if not able to install or use AirFlush™ Drain Valve.

P65 Warning: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

Disclaimers:

Sediment Buster® AirFlush™ is committed to providing a high-quality product designed for its intended purpose. This product is intended for use as a drain valve with sediment removal and draining abilities for water heater tanks.

Sediment Buster® shall not be liable for any injuries, damages, or losses resulting from the improper or unauthorized use of this product. Misuse of the Sediment Buster® AirFlush™ Drain Valve, including but not limited to using it with incompatible materials, exceeding recommended operating conditions, or using it for purposes other than sediment removal or drain valve replacement, may result in product failure, injury/death, or property damage.

Users are responsible for carefully reading and following the provided instructions, safety guidelines, and warnings, both enclosed and on the website www.sedimentbuster.com and are advised to consult a professional if not comfortable with installation or use of product. Any deviation from the recommended usage may void any warranties or guarantees associated with this product or products it is used with.

Users are responsible to consult water heater manuals, or any other resources connected to the parts of the water heater or home. Sediment Buster® shall not be held responsible for any damage to the components of the water heater or tools used to clean the water heater, including but not limited to pressure relief valves and other valves, pipes, dials, anode rods, and elements.

By using the Sediment Buster® tool, you acknowledge that you have read, understood, and agree to this disclaimer of liability for misuse, and you hold Sediment Buster® harmless from all injury or damage incurred. If you have any questions or concerns about the appropriate use of this product, please contact our customer support for guidance on our website: www.sedimentbuster.com

Sediment Buster® is dedicated to your safety and satisfaction, and we encourage responsible and informed use of our product.