Introduction:

Your Polaris water heater has a filter integrated into the air inlet. This filter is an enhancement of the water heater and is designed to protect the burner from debris and particulates that can get pulled into the air inlet during operation of the water heater.

The water heater should never be operated without the filter media installed. Operation without the filter media will void the one-year warranty on parts and labor for the combustion system components (burner, blower, gas valve, and igniter).

The water heater should not be operated without the inlet and exhaust venting installed per the “Installation Instructions and Use & Care Guide Manual”. Operating the water heater without the venting installed is not only a safety hazard, but can also subject the burner to fine particles that can clog the burner. The filter has a pore size of about 140 microns. This size is sufficient to trap large plastic shavings, bugs, and other large particles, but not the small particulates that can be airborne in a home, other types of living spaces, or commercial and industrial facilities. As an example, if the water heater is operated without venting at a construction site, the fine debris from cutting materials such as wood and drywall can pass through the filter media and clog the burner.

Installation:

1. For venting requirements, follow the instruction in the section “Vent Pipe System” in your “Installation Instructions and Use & Care Guide” manual. NOTE: Do not install the vent termination close to a roadway, paved or unpaved. Make certain the air inlet vent termination is located away from trees, shrubs or bushes and/or any source of particulates that could block the air inlet venting.
2. Remove and discard the plastic cap from the outer clamshell housing (see Figure 1).
3. To connect the heater to the air inlet, use the vent adaptor rubber boot provided in the base skirt. The adaptor rubber boot is designed for 3” venting (see Figure 2). NOTE: If there is a need for 2” venting, then use plastic pipe and fittings to transition down.
4. The vent adapter rubber boot (See Figure 2) has an overall length of 4". If during installation the boot needs to be reduced in length, the boot may be cut at the two cut lines.
5. Loosen the hose clamp at the adaptor rubber boot and slide the plastic piping into the adaptor rubber boot. With piping in place, tighten the hose clamp. Install a 3" x 3" x 2" Drain/Waste/Vent fitting to trap airborne particulates (see Figure 3). NOTE: If piping has been previously cut with a saw, be sure to remove all burrs and plastic shavings from the piping before installing.

NOTE: At least twice a year inspect the filter media for clogs and debris. To replace the filter media and for preventive maintenance see the reverse side of this sheet.

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Clogged Filter:
The heater is designed to shut down if the pressure switch senses that the air inlet vent or the exhaust vent is restricted. In this case, the pressure switch will open and the heater will generate a 2-flash code (see the troubleshooting section of the “Installation Instructions and Use & Care Guide” manual). If the troubleshooting section of the manual indicates that there is a blockage, then follow the instructions in the section Preventive Maintenance to clean or replace the filter media.

Preventive Maintenance: Removing the Air Inlet Filter Media for Cleaning and/or Replacing.
The heater must never be operated without the filter media installed. At least twice a year inspect the filter media.

Removal:
1. Turn off the gas to the water heater at the manual gas shut-off valve, and disconnect power to the water heater.
2. To inspect the filter media, loosen the hose clamp at the adaptor rubber boot and slide the plastic pipe out and away from the adaptor rubber boot (see Figure 4). (NOTE: If the plastic pipe has been previously cut with a saw, be sure to remove all burrs and plastic shavings from the piping before reinstalling later.)
3. Remove the adaptor rubber boot containing the outer clamshell housing by turning clockwise approximately 1/2” and pulling off of the internal clamshell housing (see Figure 5).
4. Using your fingers or a small flat blade screwdriver, remove the filter media from the outer clamshell housing (NOTE: The filter media is made from polyester, so handle carefully) (see Figure 6).
5. If the filter media has trapped debris then lightly tap the back of the filter support to dislodge any large debris. The remaining debris may be removed by using a vacuum cleaner. The filter media may be cleaned with soap and water by dipping the filter media into a solution of warm soapy water and rinsing in clean water. Do not scrub (NOTE: The filter media may be cleaned with soap and water on average 2 to 3 times before replacing with a new filter media is required. It is important to allow the filter to air dry before reinstalling in the water heater).
6. Reinstall the filter media by doing steps 4 through 2 in reverse order. NOTE: If found difficult to reattach the outer clamshell housing to the internal clamshell housing - apply a thin layer of silicone grease to the surface of the black rubber support of the Filter Media (see Figure 6).
7. Turn on the gas supply and reconnect power, refer to the operating instructions on front of the water heater. Verify proper operation of the water heater before leaving.

NOTE: The heater must never be operated without the filter media installed.