

Tankless Water Heaters

High Efficiency

PHH-32RDV

PHH-32ROF

Mid Efficiency

PH2-20RDVS

PH2-20ROF

PH2-25RDVS

PH2-25ROF

PH2-28RDVS

PH2-28ROF

Discontinued Products

Accessories

Main Remote Control

Both Remote Control

Commercial Conversion Kit

DUOnex™ Cable

Multi-Unit Controller

Manifold Controller

Pipe Cover - PH2 Direct Vent

Pipe Cover - PH2 Outdoors

Pipe Cover - PHH

Recessed Box - PH28 (7.4 Series) Outdoor

Recessed Box - PH2 OF

Recessed Box - PHH

Outdoors

Support

Service Center

Need Service? Our tankless experts are here to help. Low Energy Systems has a full-service center to repair or rebuild your Paloma/WaiWela tankless water heater. We are Paloma's largest distributor and certified service and repair experts and stock parts for all Paloma/WaiWela Water Heaters. In our service center, we can repair and rebuild all Paloma Tankless Water Heaters so that they work like new.

Have a Legacy Model (PH-5, PH-6, PH-12, PH-16, PH-24)? Although no longer manufactured, Paloma Legacy Tankless Water Heaters are very popular and are installed in several boats, RVs, Laundromats, restaurants and hotels. Let a Low Energy Systems expert repair or refurbish yours to keep it producing continuous hot water for years to come!

Please read through the following commonly encountered problems, if you do not see the issue you are experiencing or need further clarification feel free to send us an email by visiting our contact page [here](#) or give us a call.

You can find user manuals for all of our products [here](#).

The information below applies to our Legacy products.

Common Problems with PH5-3F, PH6, PH12, and PH24

1. Main burner is on low flame, won't turn on, or water is not hot enough or not hot as usual.

Time to rebuild water control valve assembly. Order appropriate Water Valve Rebuild Kit. Specify model and serial number when placing order.

Product Links:

[PH5-3F Part #WVRK Water Valve Rebuild Kit](#)

[PH6D Part #WVRK Water Valve Rebuild Kit](#)

[PH12,16,24 Part #WVRK Water Valve Rebuild Kit](#)

2. PH12,16,24 water heater is working but a small amount of water is leaking from 1/8" diameter hole directly above top of water control case assembly (part #110).

Purchase water valve rebuild kit and replace O-ring part #108. Follow instructions described in the kit.

Product Links:

[PH12,16,24 Part #WVRK Water Valve Rebuild Kit](#) – Be sure to specify model and serial number.

3. PH5-3F, PH6D water heater is working, but a small amount of water is leaking from weep hole left of the diaphragm housing.

Replace gas valve body/assembly which is the left side casting of the diaphragm housing and rebuild water valve. See I,A,1.

Product Links:

[PH5-3F Part #246 Gas Valve Body](#)

[PH6D Part #6-CASE Gas Valve Assembly](#)

4. Pressure / Temperature Relief Valve opens after hot water is turned off. I hear cracking noise from top of heat exchanger after heater is turned off. Scale particles are visible in outlet filter screen. Heater will run while pressure/temperature relief valve is discharging.

Heater coil (heat exchanger) may have a scale/mineral buildup caused by a high level of dissolved solids in water. Order UN-CLOG-IT Descaling Kit.

Product Links:

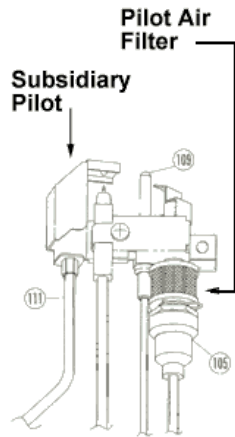
Pilot Outage

1. Pilot lights but goes out intermittently

1. Observe pilot light with front cover removed. Any yellow indicates a plugged pilot air filter. A yellow flame is weak, tentative, lazily drifting, without continuous bearing on thermocouple tip.

Solution: Take a deep breath and blow out the obstructed pilot air filter or use compressed air.

Note: In restaurants, due to grease in the atmosphere, the standing pilot orifice can get plugged and not emit any gas but the observer does not notice because the subsidiary pilot emits an aggressive torch. Cover the subsidiary pilot orifice with your finger and push in on the gas valve to test if the standing pilot is emitting gas.



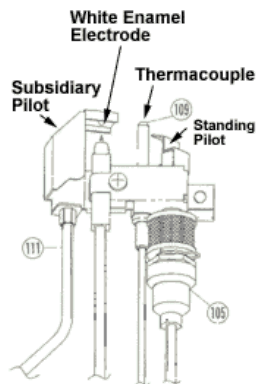
2. A neglected heat exchanger will experience distortion in the copper fin tube area, which eventually will plug the flue gas path causing flame roll-out and partially melting the fusible link, resulting in pilot outages. If the fusible link melts completely, the pilot will not hold at all.

Solution: Examine the grey plastic insulation covering the fuse wires, especially where it is parallel to the bottom lip of the combustion chamber. You might find evidence (charred plastic) of flame roll-out, which needs to be corrected before any parts are replaced.

3. Perform the Drop-out test. With the front jacket removed from the heater, set your stop watch, blow out the pilot flame, and time how long it takes for the magnet to release. You will hear a click. Twenty-five seconds is normal.

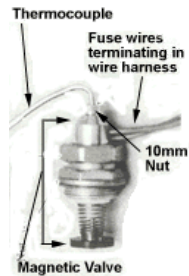
Three components are responsible for pilot flame outages: thermocouple (usually lasts 10+ years), magnetic valve (only a problem after it's disturbed; do not disturb it), or fuse circuit fusible link (usually the part that we replace). Through the process of elimination we will determine which part is at fault.

4. Gas control valve assembly is not in calibration. Call office for help.



2. Pilot lights but goes out as soon as I stop pushing on the gas valve

1. This is a fun one. From right to left you should have the standing pilot, then the thermocouple, then the white enamel electrode, then the subsidiary pilot. Is everything in the correct place?
2. So the problem is more serious. Through the process of elimination, we will discover which part is the problem.
3. First locate the small 10mm metric nut at the cold end of the thermocouple. Loosen the nut and pull the thermocouple out of the magnetic safety valve.



4. Locate the clear plastic wire harness (fuse circuit) and wiggle it out of the magnetic valve. It is inserted into the magnetic valve right before the thermocouple. Using a piece of bare copper wire, make a jumper and insert it in place of the wire harness. Insert the thermocouple nut and tighten to snug. Return to the lighting instructions and see if the pilot will now stay lit.

NOTE: Do not operate the heater in this jumpered mode, this is only a diagnostic tool.

5. The fuse circuit appears to have failed and needs to be replaced, BUT it will fail again if the CAUSE of the problem is not addressed. Possible causes: negative pressure in mechanical room, causing flame roll-out; flue path plugged at fin tube area of heat exchanger; mineral build-up in coil causing overheating.
6. If the above steps have eliminated the fuse circuit as the culprit, then we replace the thermocouple.
7. If the fuse circuit and the thermocouple are not the cause of the pilot outage, we remove the magnetic valve and check that the valve is composed of three parts: a brass electromagnet, a white plastic housing with a spring-loaded rubber plunger on the end, and a rubber washer. The white plastic assembly snaps onto the brass magnet. Be sure that the rubber washer is not caught between the brass and the white plastic as this creates a gap that prevents the magnet from grabbing its contact. While the magnetic valve is out of the heater, we can test its working as well. Insert a jumper and a good thermocouple and compress the plunger while putting heat to the thermocouple tip. After 15 seconds of heating, the plunger should stay compressed. Remove the heat source from the thermocouple and after the thermocouple cools for about 25 seconds, the force of the spring will release the plunger. Anything else is not normal.
8. Here we are at the end of the road. The pilot will not hold and we have done all of the above. Lastly we will be concerned with the calibration of the gas control valve assembly. The gas control valve assembly turns about 180 degrees between stops. In order for the valve to be out of calibration the valve must have turned beyond its stops, which is possible if the piezo igniter has been removed or if the gas knob connector has been broken or removed.

3. **RE-CALIBRATING THE GAS CONTROL VALVE**

1. Loosen the set screw on the gas knob connector.
2. Pull the plastic knob and gas knob connector off of the splined gas valve spindle.
3. Turn the spindle clockwise until you hear gas escaping from both pilot tubes without pushing in.
4. Turn the spindle counter-clockwise until the gas stops escaping. Find the friction point at which the gas comes on and goes off. Retard the spindle by turning counter-clockwise slightly (10 degrees) from the friction point.
5. Place the plastic knob and gas knob connector onto the spindle in the position where the spring-loaded arm on the gas knob connector is barely making contact with the piezo igniter prior to striking it.
6. Tighten the set screw and light the heater normally.