

# **GAS 16L OUTDOOR NGDP/LPDP**

**GAS TANKLESS WATER HEATER**

## **SELF TROUBLESHOOTING GUIDE**



# GAS 16L OUTDOOR NGDP/LPDP

## WATER IS COMING OUT COLD

Approach the unit and check for the following:

### NO CLICKING, NO IGNITION

Video: [https://www.youtube.com/watch?v=TE9ieV\\_Bny4](https://www.youtube.com/watch?v=TE9ieV_Bny4)

1. If the unit is not clicking, check the following regarding the **batteries**:

- a. Proper **placement** and orientation.
- b. Verify the **contact** of batteries with metal tabs on top inner part of battery compartment. Pull down tabs for contact. Check there is no corrosion inside.
- c. Check **battery charge**: if batteries are old, try with new batteries
- d. If it continues, with voltmeter assure 3 or more volts available from both batteries. New batteries may come with low voltage.  
  
Also, check that the battery case is not corroded in the inside nor on the tips of the cables.
- e. Lastly verify that the springs are in its natural position and making contact with the batteries.

2. Check the following regarding the **source of water**:

- a. Water pressure must be at least 30 psi. Unit must have enough water pressure to activate. Perform the microswitch test (LINK) and see if the unit sparks, if it does, then it is low water pressure.

## TROUBLESHOOTING

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i. Verify if the following fixes for your unit:

1. **Remove the shower head**. If the unit starts heating water, then the showerhead is restricting water pressure and impeding activation. This can be caused by sedimentation/hard water. Clean your shower head, substitute it to a higher flow one or contact your plumber to boost your water pressure.

2. **Check the inlet filter** and fixture aerators to see if there is sediment restricting water flow. Remove sedimentation and verify.

## CLICKING, NO IGNITION

Video: <https://www.youtube.com/watch?v=IMiSmYrComQ>

1. If you have opened the tap, there is water flowing through the unit and there is clicking but no ignition, identify which of the following sounds you hear:

- sparks + solenoid
- sparks + no solenoid
- no sparks + solenoid

a. **#1 (sparks + solenoid)** - check the gas supply and state of gas regulator. There is no sufficient gas flow for the unit to ignite. Gas pressure must be as follows:

- Liquid Propane [0.41 - 0.5 PSI]
- Natural Gas [0.25 - 0.5 PSI]

b. **#2 (sparks + no solenoid)** - the solenoid is not opening. Request a replacement

c. **#3 (no sparks + solenoid)** - the solenoid is opening but there is no noise from the ignitor sparks, verify the microswitch. If not the microswitch, check that the ignitor cables are tight they have no dust, if they do, clean them and/or replace ignition pins.

d. If not any of the above, check that the unit has enough oxygen supply (altitude of installation, ventilation in the environment).

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## CLICKING AND IGNITING

1. Check the **ignition pattern** of the unit:

- a. **1 second** (thermostat is damaged): turns on and off immediately - request a replacement.  
(Component ID #HEATSEN32D)
- b. **7 seconds** (check on the thermocouple): clean and check that it is not burnt, dusty or that its cable (with blue stripe) is not loose or has bad connection (trim ¼" for fresh connection) - if not fixed request a replacement.  
(Component ID #THERMO10L)
- c. It ignites and then goes off when mixing cold water: check on the water pressure and modify settings so that less cold water is needed to be mixed and there is less pressure input from the cold side in the mixing valve. That is, decrease the output temperature on the unit so there is less or no need to mix cold water.
- d. **30 seconds** (without mixing the water) and goes off: contact one of our agents referring to a control box replacement  
(Component ID #DIGCOBO)
- e. If water temperature is lower than usual with same settings and the unit is old, the diaphragm could have stretched out with use and hot water cannot reach as far. Contact for verification.
- f. If inconsistent ignition check for gas supply. Check, clean or remove restrictors on fixtures.

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- g. **Inconsistent.** Check for altitude of installation, if in high altitude the unit may be starving for oxygen.
- h. Check for the unit to have a properly ventilated environment (can report inconsistent ignition patterns with reduced air supply).

## WATER IS COMING OUT TOO HOT

If the water is coming out too hot, regulate the unit through knob adjustments.

Check if shower head is not low flow, if it is, test unit with shower head off and replace fixture.

If continues, check the water pressure and flow are not too low and that you are mixing cold water properly (mixing valve in good condition).

If continues, check for the longevity of the unit and the hardness of the water - if it has been installed for long and the water is hard then flushing of the unit is recommended. Check for sediments in the water inlet valve.

## WATER LEAKAGE

Check which component is leaking and proceed with replacement.

Component leakages are unusual but can occur with most frequently at the pressure relief valve (Component ID #WADI) and water valve (Component ID WAVA32DLP (LP model) / WAVA32DNG (NG model)).

As you check valves, also verify that the microswitch is in good state and remains unaffected by the water. If you had to replace one of the valves and your unit is new, reduce water pressure if unusually high.

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## NOTICE

### ALTITUDE

Make sure there is enough oxygen in the air for the unit to be able combust properly.

### VENTILATION

For performance and safety purposes.

### WATER SUPPLY

Water pressure, water hardness, water sedimentation, source of water.

### GAS SUPPLY

Gas pressure, source of gas, type of regulator, check for any leaks in the system, check that the gas type is adequate for the unit.

### DISTANCE TO POINT OF USE

The unit should not be installed too far or too close to the point of use. .

### UNIT IS NOT APT FOR RECIRCULATION

Pools/jacuzzi/floor heating.

## TROUBLESHOOTING