

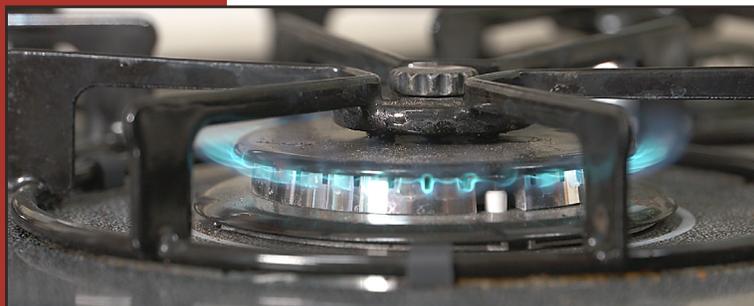
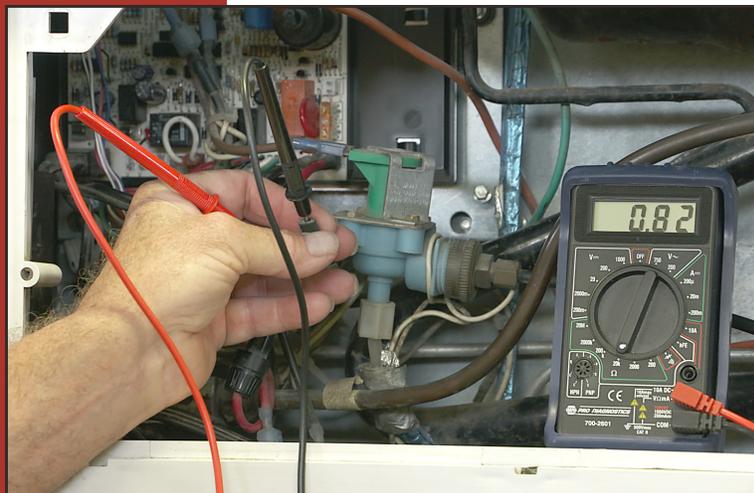


CLASS RESOURCE

LP SYSTEM KNOW-HOW

LP Refrigerator Troubleshooting

If your absorption refrigerator does not cool properly or does not work on the propane mode, use the following steps to troubleshoot:



1. Operate the refrigerator on another power source, such as 120-volt electricity. If the unit cools sufficiently, it is not the cooling unit, inside control panel, or thermistor causing the issue. If it does not operate as designed on both modes, check for 12-volt DC power to the control module. If no 12-volt power is available, check the fuse in the distribution center. If 12-volt power is present, verify the thermistor is operating properly by conducting an ice water bath and Ohm test. Resistance specifications should be in your owner's manual. Make sure it is not encased in ice as it will give a false temperature reading. To test the cooling unit for proper operation, connect a 120-volt power source directly to the cooling unit wires bypassing all electronic panels. Run the cooling unit for 24 hours. If it does not cool sufficiently, the cooling unit is blocked or defective.

2. If the refrigerator cools sufficiently on 120-volt power and not the LP mode, check 12-volt power to the control module on the back of the refrigerator. This is accessed through the exterior vent. Verify functionality of the 12-volt fuse in the distribution center as well as the in-line fuse in the control module.

3. Verify proper LP pressure by turning on stove top burners one at a time. Check the flame as you turn other burners on – if the flame drops and stays low, you have a



defective regulator or a pinched line. This can also be verified by a certified technician using a manometer or water column tester.

4. If LP pressure is good, turn the refrigerator off, wait 60 seconds, and then turn it on to the LP mode. Go outside and listen for the click of the gas valve opening. No click typically means no power to the gas valve which can be checked with a simple light tester. This would indicate a defective control module. If 12-volt is present at the valve and still no click, it's a defective valve.

5. If the gas valve opens, listen for the spark ignitor trying to light in the burner assembly. If there is no spark attempt, check 12-volt power to the ignitor. This would mean there is a defective ignitor.

6. If there is a spark attempt, but not ignition, check the ignitor for alignment and the ceramic insulation. If the spark probe is not aligned properly, the spark does not travel to the burner assembly and needs to be adjusted. If the insulation

is cracked, the spark will follow the crack which is known as carbon tracking.

7. Clean the burner assembly. The LP vapor needs to travel through the supply tube and combine with air to the burner assembly. Any blockage in that path will restrict the flow and either cause a low flame or no ignition. Dust, soot, or even a spider can block the flow. An occasional cleaning will help ensure a sufficient vapor flow and proper operation. Use an air compressor with a blow nozzle to thoroughly clean the burner assembly, flue, and the cooling unit.

8. If the burner assembly lights, but still has insufficient cooling, open the site window and verify the flame is a steady blue without jumping and orange flairs. A low or erratic flame will not provide enough heat to boil the solution and create a vapor.

9. If the flame starts but goes out in a few seconds, it's probably the thermocouple. As the flame burns from the burner assembly it is designed to reach a probe a few inches above it and creates a closed circuit that tells the control module there is a flame and it is operating properly. The control module will attempt to light the burner assembly with a series of sparks and wait to verify there is a flame. If there is no flame, it will try two more times before giving an error code. If the burner assembly lights but does not come in contact with the probe, it is an open circuit which is the same as no flame. It will shut down and try two additional times. If the probe is misaligned or defective, it will mean the same as no flame and will shut down.