

5. CHECK THE AIR ADJUSTMENT.

The burner tube has an adjustable air shutter on it at the end where it goes over the orifice. Position the air shutter so that it is 1/4 of the way open. We are looking for a blue flame with small traces of yellow in the flame. If the flame is fairly quiet then it is adjusted correctly.

6. CHECK THE CLEANLINESS OF THE ORIFICE.

The orifice is the hex head brass fitting that is screwed onto the brass manifold of the valve. You will have access to this part once the burner has been removed. Remove the brass orifice and clean with isopropyl alcohol. **NEVER** enlarge the size of the orifice.

7. CHECK FOR OBSTRUCTIONS IN THE MAIN BURNER TUBE.

The cleanliness of this tube is very important. Spider webs, soot and other debris can accumulate, causing problems with gas flow down the tube. We recommend cleaning the burner tube with a brush and not compressed air. Compressed air may not fully remove the obstruction.

8. CHECK THE CLEANLINESS OF THE FLUE TUBE.

The flue tube is the 2-1/2 inch diameter tube that starts at the bottom right corner of the water heater (where the main burner flame enters) and comes out the top left. This tube can become blocked by debris like insect nests or soot. To clean remove the metal flue box in the top left corner of the water heater. To facilitate cleaning unfold a wire hanger, wrap a rag around the end and use this to swab out the tube.

9. CHECK THE VOLTAGE TO THE VALVE.

Make sure that the voltage to the gas solenoid valve is between 10.5 and 13.5 volts DC. Voltage drops can occur at almost any component. Turn on another twelve volt appliances when you check the voltage so that you can see how the converter is working with a load. The voltage itself can be intermittent. With linear converters the 12 VDC varies depending on the 115 VAC. If the 115 VAC is high then the 12 VDC will be high, and if the 115 VAC is low then the 12 VDC will be low. If the power to the water heater is connected to the unfiltered side of the converter, move it to the filtered side.

10. CHECK THE GAS PRESSURE OF THE RV.

Make sure the gas pressure of the RV is checked with preferably the furnace and the range on to simulate a load. The pressure should be 11 inch water column under load. Besides gas pressure being at the proper level there are other strange things that can happen inside gas lines that cause intermittent problems. We have seen oil build up in a gas line that meant there was good pressure to one appliance but not the correct pressure to another appliance. Moisture could also build up in the gas line that would freeze and partially block the line. Intermittent pressure from the regulator of the bottles is still another area that should be investigated.

11. INTERMITTENT CIRCUIT BOARD.

If you have gone through all of the above checks and the intermittent problem is still occurring, only then check the circuit board. Ensure the circuit board is clean and reasonably moisture free before you change it.

There are two major points that should have stood out to you from this list.

First, the majority of intermittent ignition problems on Atwood electronic ignition water heaters can be corrected by cleaning certain components or making simple adjustments.

Second, ignition problems can be found in other components than the circuit board. The circuit board is not the end all solution to ignition problems. This mindset developed a number of years ago with the introduction of the first circuit boards that were not very reliable. We've learned a lot since then. Technology has progressed making today's circuit boards very reliable. The circuit board can only do what the other components of the water heater allow it to do.