

QUICK START GUIDE

ATMOSPHERIC VENT - WHITE RODGERS ELECTRONIC

Operation Overview

This White Rodgers Electronic Gas Valve is powered by millivolt (mV) output, from a thermopile heated by the standing pilot flame. No external power or battery is required to run the control. During normal operation the LED status indicator will flash once every second on a call for heat. When the setpoint knob is turned to pilot, or the control is in standby, the LED will flash once every four seconds.

Be sure the water heater is full of water before lighting the pilot.



Measuring Thermopile Output

Using a voltmeter, touch each lead to the wires plugged into the front of the control; if necessary fold open the tabs to expose the connections.


Typical readings are as follows:

When the pilot is lit voltage will steadily climb to approximately 300-500 mV.

Immediately after the LED blinks, the voltage will drop approximately 100-150 mV then stabilize. This is normal operation.

Pilot Lighting Checklist

WARNING: Read ALL safety information on the operating instruction label of the water heater before proceeding. Smell for gas around the heater, including near the floor. If you smell gas, follow the safety information on the label.

- ☒ Press and hold the setpoint knob in.
- ☒ Click the piezo igniter up to ten times, rapidly.
- ☒ With the pilot lit, hold the setpoint knob in, until the LED blinks—this can take up to 90 seconds.
- ☒ Increase pressure on the knob to ensure the pilot valve engages.
- ☒ Wait until the third LED blink before releasing the knob.
- ☒ Turn the setpoint knob to the desired temperature setting. The recommended setting is the "Hot" position, approximately 120°. The LED will blink once every second to indicate a call for heat.
- ☐  Release the knob if there is no blink after 90 seconds. Wait five minutes before trying to relight.
- ☒ On the first heat cycle, the control waits several seconds to light the burner. This is normal operation.

SERVICE MANUAL SUPPLEMENT – QUICK SERVICE GUIDE

ATMOSPHERIC VENT - WHITE RODGERS ELECTRONIC

Error Code	Definition	Service Action	Possible Parts Needed
No LED	No pilot light / heater not in operation	Follow lighting instructions on the water heater	1) None
One flash & four second pause	Knob in pilot position or thermostat satisfied	None	1) None
One flash every second	Thermostat calling for heat	None	1) None
Two flashes & three second pause	Weak pilot signal detected	Verify pilot is lit Check thermopile voltage output Check wire connections at gas valve	1) Pilot assembly 2) Gas valve
Four flashes & three second pause	High tank temperature	Check if tank temperature exceeds setpoint Check operation of control Verify no heat migration in plumbing system	1) Gas valve
Five flashes & three second pause	Gas valve fault	Turn to off, wait for LED to go out, relight – Turn knob to setpoint If burner fires code will clear after 5 minutes If problem persists, replace gas valve	1) Gas valve
Solid ON	Not an error-indicates that the control is shutting down Control knob turned to the off position	None; wait until LED goes out before attempting to relight	1) None

NOTE: Check all wire connections
Check gas inlet and manifold gas pressure
Check for grounding connections

