



BULLETIN # A-50-2009-S

From: Parts and Service Department
To: All US Authorized Service Agencies

Date: April 6, 2009

Subject: SIT Control Operational Guide
Models Affected: G, GF, U, and X Series Ranges

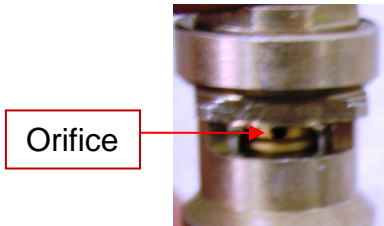
Due to many questions regarding the operation of the SIT Control, below is a description of the valves operation for review.

The SIT control is a Modulating Snap Combination Safety Valve and Thermostat Control.

The First Stage Screw shown below, is installed by the control manufacturer and should not be adjusted. If you believe it has been tampered with, turn the screw all the way clockwise until tight for the proper setting. **(Do not over tighten)**



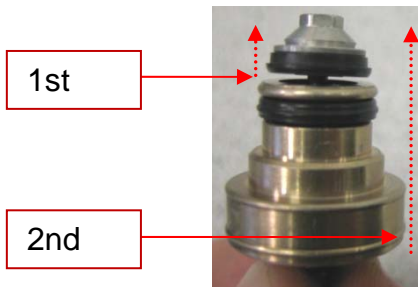
Garland uses a fixed drilled orifice to regulate the first stage in the SIT Control as shown below.



(Internal component shown, do not disassemble control)

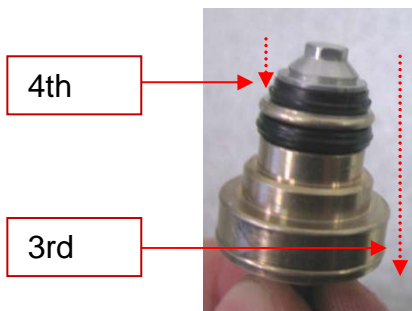
When a call for heat is initiated, the thermostat will cycle as follows:

First stage, as shown below, begins when the thermostat applies light pressure to the base of the valve assembly. The greater the degrees for the thermostat to rise to set point, the higher the pressure will be. When higher pressure is applied to the base of the valve assembly, the second stage begins. The second stage raises the entire valve assembly.



(Internal component shown, do not disassemble control)

As the control approaches set point, the valve assembly lowers, modulating the flame, until it completely closes, leaving the fixed flame of the first stage to continue. Until all pressure is removed and valve assembly is fully closed as shown below.



(Internal component shown, do not disassemble control)

So to review, first stage is a fixed flame based on an orifice within the control and second stage is modulating, based on variable valve assembly positioning. Both snap closed when the thermostat satisfies the call for heat by relieving the pressure from the Valve Assembly.