

PRODUCT BULLETIN
ZIP Economizer™

PB – 116
February 3, 2016

Update: Incompatible Thermostats

Summary: Old mercury thermostat may be incompatible with the ZIP Economizer.

Background:

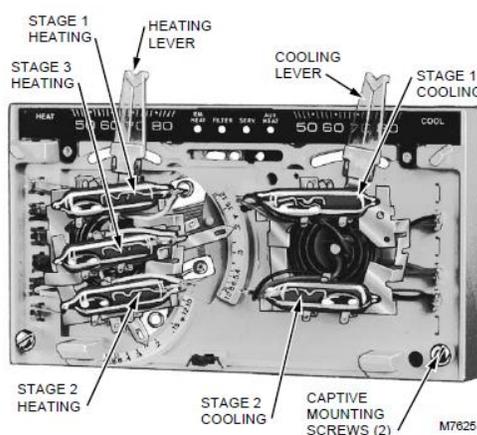
Mercury Thermostats were widely used in the 20th century prior to DDC. They were produced until 2006 and continue to function due to their simple circuitry. However they provide few benefits as compared to today's thermostats other than price.

Problem:

These type of thermostats had what is referred to as anticipators in the cooling and heating circuits of the subbase. The anticipator circuit leaks a small amount of low current voltage to the Y1 and Y2 cooling circuits. The voltage is enough for the ZIP Economizer to detect and believe there is a call for cooling from the thermostat. However, when the ZIP enables Free Cooling or Mechanical Cooling functionality (output to ACT3 or CC1), it draws current on the circuit, which is enough to drop the voltage below what is detected by the ZIP. The result is a constant on/off cycle and makes the ZIP incompatible.

What to do:

Replace the thermostat with a modern electronic thermostat is recommended. Programmable thermostats are widely available today in a variety of styles, are less costly than in the past, and provide value through customizable programming energy savings. Or, use isolating relay in the Y1, Y2, W1 circuits.



Contact Customer Service or Technical Support for assistance or further information in Danbury 800-543-9038, Sparks 800-987-9042, Canada 866-805-7089 or Brazil + 55 11 3643-5656.