



Application Note 008

Use of a Zone Setpoint Offset Potentiometer

An optional setpoint offset potentiometer is available that allows the occupant to have limited control over the temperature in their space. If installed at the wall sensor, the pot only requires one additional wire for a total of four. If installed at another location, the pot will require three conductors. Application Note 003 lists suggested Analog Input locations. Once installed, the offset must be configured at the Command Center. The Zone Offset feature is supported in BAS software Version 3.5 or later. A brief description of the setup and operation follows:

Operation

1. When the pot is centered, a voltage of 1.90 Vdc (Rev 1 RSC) or 2.50 Vdc (Rev 3 RSC) is sent to the AI and interpreted by the System as zero offset. Fully clockwise inputs 3.80 Vdc (Rev 1 RSC) or 5.00 Vdc (Rev 3 RSC) and equals a full plus offset at the PC. Fully counter-clockwise inputs 0.0 vdc and equals a full minus offset at the System.
2. The offset is added (or subtracted) from the configured Occupied heating and cooling setpoints to generate new operational setpoints. The original configuration is not affected. Setpoints are not changed in any mode but Occupied. The setpoints displayed in the main list box are after offset modification. The reported space temperature is not affected.
3. The Zone Offset Allowed and the actual Zone Offset can be selected for display in the main list box through the Zone List Options screen.

Setup

1. Select a scaling of 'Zone Offset Sensor' at the AI location being used.
2. At the Zone configuration screen, enter the 'Maximum Zone Offset Allowed'. This can be any value from 0 to 10° F and represents the offset allowed, not the total span. An entry of 5 will allow a range of -5° F to +5° F for a total span of 10° F. An entry of zero will disable the offset.
3. If the knob must be re-installed on the pot, disconnect the pot and use a multimeter to adjust the pot to a reading of 14K (Rev 1 RSC) or 11.5K (Rev 3 RSC) from W-G. The knob should now be installed at the indication of zero offset.

