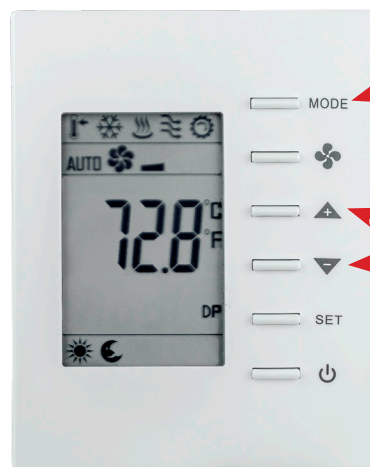




# BAST-121C Single Mode Thermostats: How to Change the Control Type and System Mode from Heating/Cooling

The BAST-121C Single Mode thermostats are part of the Contemporary Controls' BASstat series of BACnet-compliant wired (BAST-121C-B2) or wireless (BAST-121C-BW2) communicating thermostats. They provide multi-stage heating only or cooling only control for binary or analog output control applications, such as unitary heating or cooling units. The thermostats can control one or two stages of heating, one or two stages of Direct Expansion (DX) cooling, or a single 0-10 V control output for either modulated heating or cooling. The BAST-121C models are BTL listed to ensure effortless integration into BACnet/IP (Wi-Fi) or BACnet MS/TP (EIA-485) networks. Units can be routed to BACnet/IP clients using a BASrouter (BASRT-B).

The BASstat is configurable locally using the *Engineering Menu* or via a network connection to a BACnet client. The installer can enter *Engineering Menu* by holding both the **UP** and **DOWN** buttons simultaneously for seconds. The buttons can be locked to limit user access to the *Engineering Menu* after installation is complete. Installers can also configure the thermostat over the BACnet network using a BACnet client device or software such as Contemporary Controls' free BACnet Discovery Tool.



### MODE Button

Changes modes Heat/Cool/Vent and used for accept/confirm button in *Engineering Menu*

### UP & DOWN Buttons

Increase & decrease setting or previous/next item. Hold both buttons for 5 sec. to enter *Engineering mode*.



# Instruction Sheet – BAST-121C Single Mode Thermostats

## Change the Control Type and System Mode

The factory default control type is Heating Only (2-stage binary or modulating analog). System modes (Cool only, Heat only, Ventilate) are dependent on Control Type chosen from BACnet object [MSV1] Control Type, or by toggling the MODE button after setting an option command (OPTS) in the *Engineering Menu*. The installer must determine the appropriate Control Type for the application and set it to the desired function.

**NOTE:** Control Type can only be configured using either the *Engineering Menu* or a BACnet supervisor.

Once the system mode is set by the installer, the BASstat will stay in that mode exclusively until a two-step control changeover sequence is initiated. **NOTE:** Once the Control Type is set via BACnet or the *Engineering Menu*, a factory reset (rst) will not affect this setting

## Change Control Type via BACnet:

1. Set the Options parameter (BACnet point AV37) to **binary 1** to enable the changeover action.
2. Within one minute, set BACnet point MSV1 to:
  - **Cooling Only (1)** or
  - **Heating Only (2)**

## Change Control Type Locally via the Engineering Menu:

1. Set the OPTs bit to **1**.
2. Allow the *Engineering Menu* to time out.
3. QUICKLY press the **MODE** button, then press the **UP** or **DOWN** button to switch between heating and cooling modes.

**IMPORTANT:** Once the Options parameter (OPTs or BACnet point AV37) is set, the installer has **one minute** to change the system mode between heating or cooling; otherwise after one minute, the Options parameter will reset to **0**, and the mode will be locked.

## Setpoints and Operation:

- For Cooling Only, use:
  - Occupied Cooling Setpoint (**AV0**)
  - Unoccupied Cooling Setpoint (**AV8**)
- For Heating Only, use:
  - Occupied Heating Setpoint (**AV3**)
  - Unoccupied Heating Setpoint (**AV9**)

**NOTE:** Deadband is not applicable in this single-mode application.

System modes and button operation may be limited by the installer, especially if the thermostat is completely controlled over BACnet network.

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