

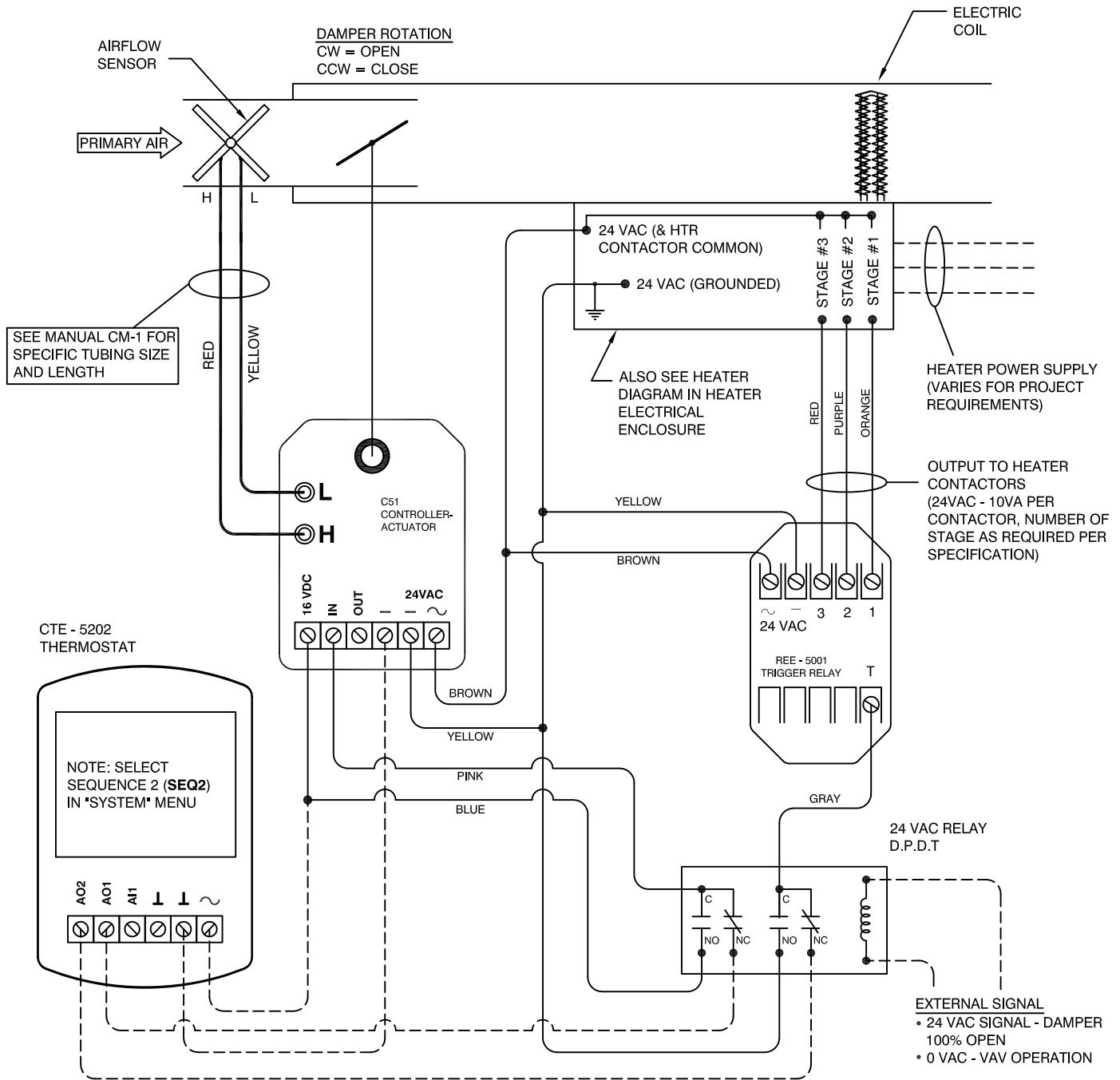
# ANEMOSTAT<sup>®</sup>

## AIR TERMINAL CONTROLS

### Control Package

# SD - A - 5221

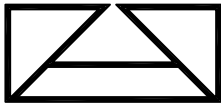
- SINGLE DUCT
- ANALOG ELECTRONIC CONTROLS
- VAV COOLING
- ELECTRIC HEAT - STEP CONTROL
- MORNING WARMUP - DAMPER 100% OPEN
- PRESSURE INDEPENDENT
- AIR FLOW SETPOINTS ADJUSTED AT THERMOSTAT



REFER TO ANEMOSTAT "CONTROLS MANUAL" (CM-1) FOR ADJUSTMENT & TROUBLESHOOTING PROCEDURES.

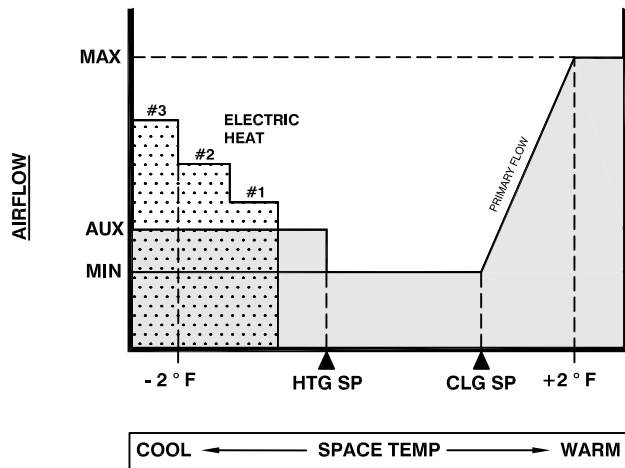
**JOB NAME:**  
**SUBMITTED BY:**  
**DATE:**

**DWG #:** SD-A-5221.1  
**REV:** -  
**DATE:** 3-2-2017



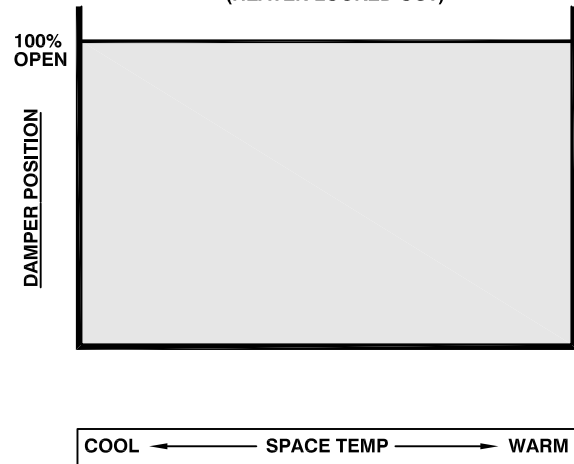
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- ANALOG ELECTRONIC CONTROLS
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## VAV OPERATION



## MORNING WARMUP

(HEATER LOCKED OUT)



## SEQUENCE OF OPERATION

1. DURING VAV OPERATION (EXTERNAL SIGNAL = 0 VOLTS), THE THERMOSTAT SIGNALS THE CONTROLLER IN RESPONSE TO THE SPACE TEMPERATURE, AND INCLUDES BOTH A COOLING AND HEATING SETPOINT SLIDER.
2. AS THE SPACE TEMPERATURE INCREASES FROM THE COOLING SETPOINT TO +2° F ABOVE THE COOLING SETPOINT, THE DAMPER OPENS FROM MINIMUM AIRFLOW TO MAXIMUM AIRFLOW. ABOVE (CLG SP + 2° F), THE DAMPER MAINTAINS MAXIMUM FLOW.
3. MINIMUM AIRFLOW IS MAINTAINED WHEN THE SPACE TEMPERATURE IS BETWEEN THE HEATING AND COOLING SETPOINTS.
4. WHEN THE SPACE TEMPERATURE HITS THE HEATING SETPOINT, AND IF THERMOSTAT JUMPER T2-R2 IS IN PLACE, THEN THE AIRFLOW RATE IS INDEXED TO THE AUX AIRFLOW SETPOINT. IF THE JUMPER IS REMOVED, THEN THE AIRFLOW RATE IS MAINTAINED AT MINIMUM. INCREASING AIRFLOW USING AUX FLOW DURING HEATING WILL REDUCE THE DISCHARGE TEMP FOR IMPROVED THERMAL COMFORT.
5. UP TO 3 STEPS OF ELECTRIC HEAT ARE ENERGIZED AS THE SPACE TEMPERATURE DROPS FROM THE HEATING SETPOINT DOWN TO (HTG SP - 2° F)
6. IN MORNING WARM-UP MODE (EXTERNAL SIGNAL = 24 VAC), THE DAMPER IS DRIVEN TO 100% OPEN POSITION, AND THE HEATER IS LOCKED OUT. FLOW IS NOT CONTROLLED, AND WILL VARY BASED ON AVAILABLE DUCT PRESSURE (PRESSURE DEPENDENT).
6. THE MINIMUM, MAXIMUM, AND AUX AIRFLOW SETPOINTS ARE ADJUSTED AT THE THERMOSTAT.
7. UPON LOSS OF POWER, DAMPER FAILS IN PLACE.

**JOB NAME:**  
**SUBMITTED BY:**  
**DATE:**

**DWG #:** SD-A-5221.2  
**REV:** A  
**DATE:** 5-31-13