

# ANEMOSTAT<sup>®</sup>

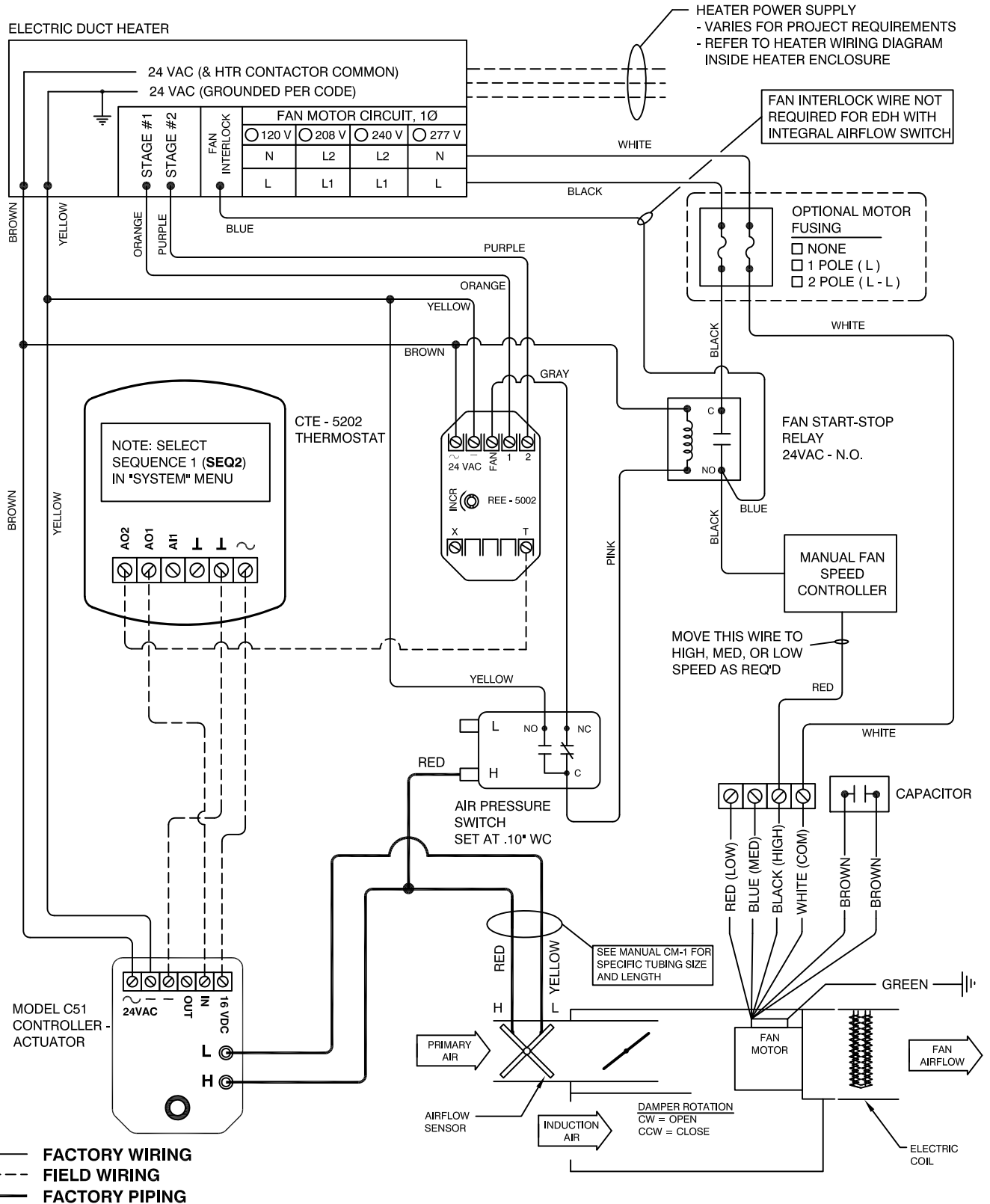
## AIR TERMINAL CONTROLS

# Control Package

## FS - A - 5221

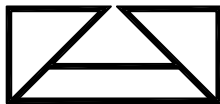
- SERIES FAN AIR TERMINAL
- ELECTRIC HEAT - STEP CONTROL

- ANALOG ELECTRONIC CONTROLS
- NIGHT CYCLING FEATURE



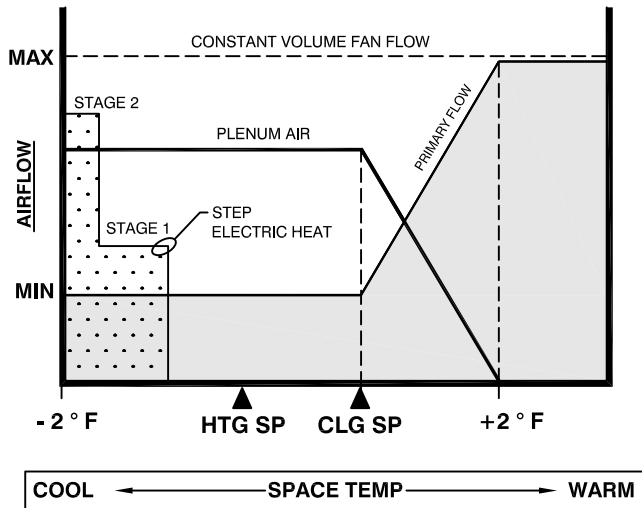
**JOB NAME:**  
**SUBMITTED BY:**  
**DATE:**

**DWG #: FS-A-5221.1**  
**REV: -**  
**DATE: 4-24-2017**

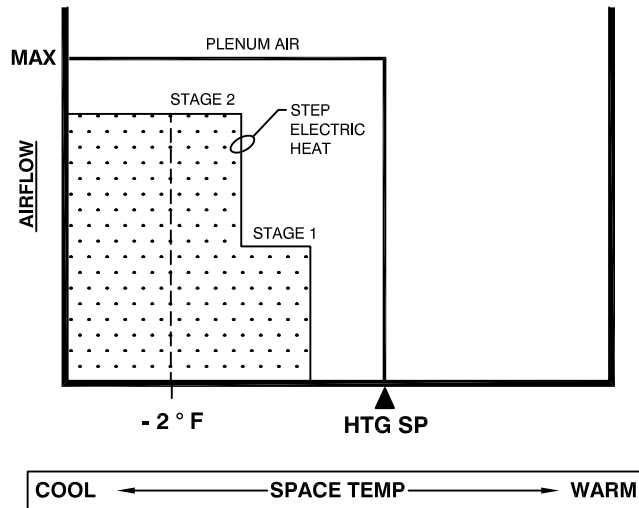


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## OCCUPIED MODE (AHU ON)



## UNOCCUPIED MODE (AHU OFF)



## SEQUENCE OF OPERATION

THE AIR TERMINAL FAN MUST BE RUNNING TO DELIVER AIR TO THE SPACE. THE CONSTANT VOLUME FAN CFM (MANUALLY ADJUSTABLE) MUST BE GREATER THAN THE MAXIMUM PRIMARY CFM TO PREVENT SPILLING OF AIR INTO THE CEILING PLENUM. FAN CFM = PRIMARY CFM + INDUCED CFM

THE MINIMUM AND MAXIMUM PRIMARY AIRFLOW SETPOINTS ARE ADJUSTED AT THE WALL THERMOSTAT.

### OCCUPIED MODE (AHU ON)

1. THE AIR PRESSURE SWITCH SENSES SUPPLY DUCT PRESSURE, AND TURNS THE TERMINAL FAN ON. THE THERMOSTAT SIGNALS THE CONTROLLER IN RESPONSE TO THE SPACE TEMPERATURE, AND INCLUDES BOTH A COOLING AND HEATING SETPOINT SLIDER.
2. AS THE SPACE TEMP INCREASES FROM THE COOLING SETPOINT TO  $+2^{\circ}\text{F}$  ABOVE THE COOLING SETPOINT, THE DAMPER OPENS FROM MIN TO MAX AIRFLOW. ABOVE  $(\text{CLG SP} + 2^{\circ}\text{F})$ , THE DAMPER MAINTAINS MAX FLOW. BELOW COOLING SETPOINT TEMP, MIN AIRFLOW IS MAINTAINED.
3. AS THE SPACE TEMP DECREASES FROM THE HEATING SETPOINT TO  $-2^{\circ}\text{F}$  BELOW THE HEATING SETPOINT, UP TO 2 STEPS OF ELECTRIC HEAT ARE ENERGIZED.

### UNOCCUPIED MODE (AHU OFF)

1. THE AIR PRESSURE SWITCH SENSES THE DROP IN DUCT PRESSURE. THE PRIMARY DAMPER WILL OPEN 100%. THE REE-5002 MODULE THEN CONTROLS THE FAN ON-OFF FUNCTION BASED ON THE HEATING SETPOINT.
2. AS THE SPACE TEMP DECREASES TO ABOUT  $-1^{\circ}\text{F}$  BELOW THE HEATING SETPOINT, THE TERMINAL FAN WILL ENERGIZE. AS THE TEMPERATURE CONTINUES TO DECREASE TO  $-2^{\circ}\text{F}$  BELOW THE HEATING SETPOINT, UP TO 2 STEPS OF ELECTRIC HEAT WILL ENERGIZE IN SUCCESSION.

UPON LOSS OF POWER, PRIMARY DAMPER FAILS IN PLACE.

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