



**NOTES:**

1. The Mechanical Systems Control Contractor (MSCC) shall be responsible for the selection of, providing & installing all DDC controllers & control devices to accomplish the sequence of operation specified herein. All products, manufacturers & installation requirements shall conform to Masterspec 230905 - "Mechanical Systems Controls".
2. The MSCC shall provide & install all DDC & related wiring, conduit & j-hook hanging systems. See Masterspec 230905 - "Mechanical Systems Controls" for raceway/conduit, cabling and labeling requirements.
3. MSCC shall integrate unit controls back to the UMHC unified front end (i.e. Desigo) per standards outlined in Masterspec 230905 - "Mechanical Systems Controls" All front end graphics, point mapping, alarm & trend management shall be the responsibility of the systems integrator contracted by Systems Monitoring.

**SEQUENCE OF OPERATION:**

- A. On a call for cooling, the thermostat signals for the heating control valve to modulate toward the closed position. On a further call for cooling, the thermostat signals for the volume damper to modulate from its minimum setting to its maximum setting.
- B. On a call for heating, the thermostat signals the volume damper to modulate towards its minimum position. On a further call for heating, the thermostat signals the heating coil valve to modulate toward the full open position.

**Note to Editor: Delete the following paragraph and associated occupancy sensor in above diagram if occupancy sensors are not used:**

- C. When VAV box senses that the space is unoccupied, minimum airflow reduces to 0 CFM and the VAV box modulates to maintain temperature range of 70°F - 74°F.

TYPICAL DDC VAV UNIT W/ REHEAT CONTROL  
 DIAGRAM - RETROFIT IN EXISTING UMH FACILITIES  
 SCALE: NONE



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TYPICAL DDC VAV UNIT W/ REHEAT  
 COIL CONTROL DIAGRAM - RETROFIT  
 IN EXISTING UMH FACILITIES