Rough-In Wiring for Fully Automatic Modulating Floor Heating

July 17, 2008 - **ELECT 1.2a**

(C/W ROUGH IN WIRING FOR STANDARD ROOM/ZONE THERMOSTATS)

Residential Projects Low Voltage Wiring Only! (See ELECT 1.2b for corresponding schematic and StatLink® Technical Guide - L3710 for thermostat tie-in.)

1 **OUTDOOR SENSOR:**
2 wires from side of building (outside wall location; preferable location to be on the same side of the building where the main occupied rooms are and not near any windows, ventilation openings or artificial heat sources!) back to mechanical room.

2 **REMOTE INDOOR SENSOR:**
2 (__) wires from a main occupied area back to the mechanical room. (Location chosen should reflect the area where the most solar gain will occur). (Note: modulating boiler requires 3 wires.)

3 **ROOM THERMOSTATS:**
3 wires from each low occupancy room back to corresponding manifold location, (rough-in wire 6" above light switch for future access; **Drywall overtop to conceal!)** (Optional: 4-wire rough in for future night setback thermostat).

4 **MANIFOLD ACTUATORS:**
2 wires for a 24V power source from each manifold location back to the mechanical room. (Optional wiring: allow for 110V power source to a 24V transformer at each manifold)

5 **ALTERNATE HEAT SOURCES:** ***(I.E. BASEBOARD OR TOWEL WARMER RADIATORS)***
3 wires from each alternate heat source zone back to mechanical room. (If alternate heat source is to be roughed in only for a future installation, then leave wires 6" above zone light switch just as all other wire rough-in's. **Drywall overtop to conceal!)**

6 **AIR/AIR EXCHANGER:**
2 or 3 wires (as per manufacturers instructions) for dehumidistat (same general location as item # 2) back to mechanical room. **(Do not use an electrical box!)**

NOTE: DO NOT USE ELECTRICAL BOXES FOR ANY WIRING OTHER THAN AIR/AIR EXCHANGER OCCUPANCY TIMER SWITCHES ONLY!! (SEE MECHANICAL SCHEMATICS FOR 110V & AQUASTAT WIRING REQUIREMENTS)

NOTE: Wiring for dehumidistat is not required when an internal sensor is included in the air/air exchanger!) 2 or 3 wires (as per manufacturers instructions) for the occupancy timers (provided by the electrician unless other wise specified) from each air/air exchanger intake location (i.e. bathrooms, laundry room, kitchen etc.) back to mechanical room. (Use an electrical box!)

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Application: **Fully automatic modulating water temperature for floor heating & component wiring rough in**

