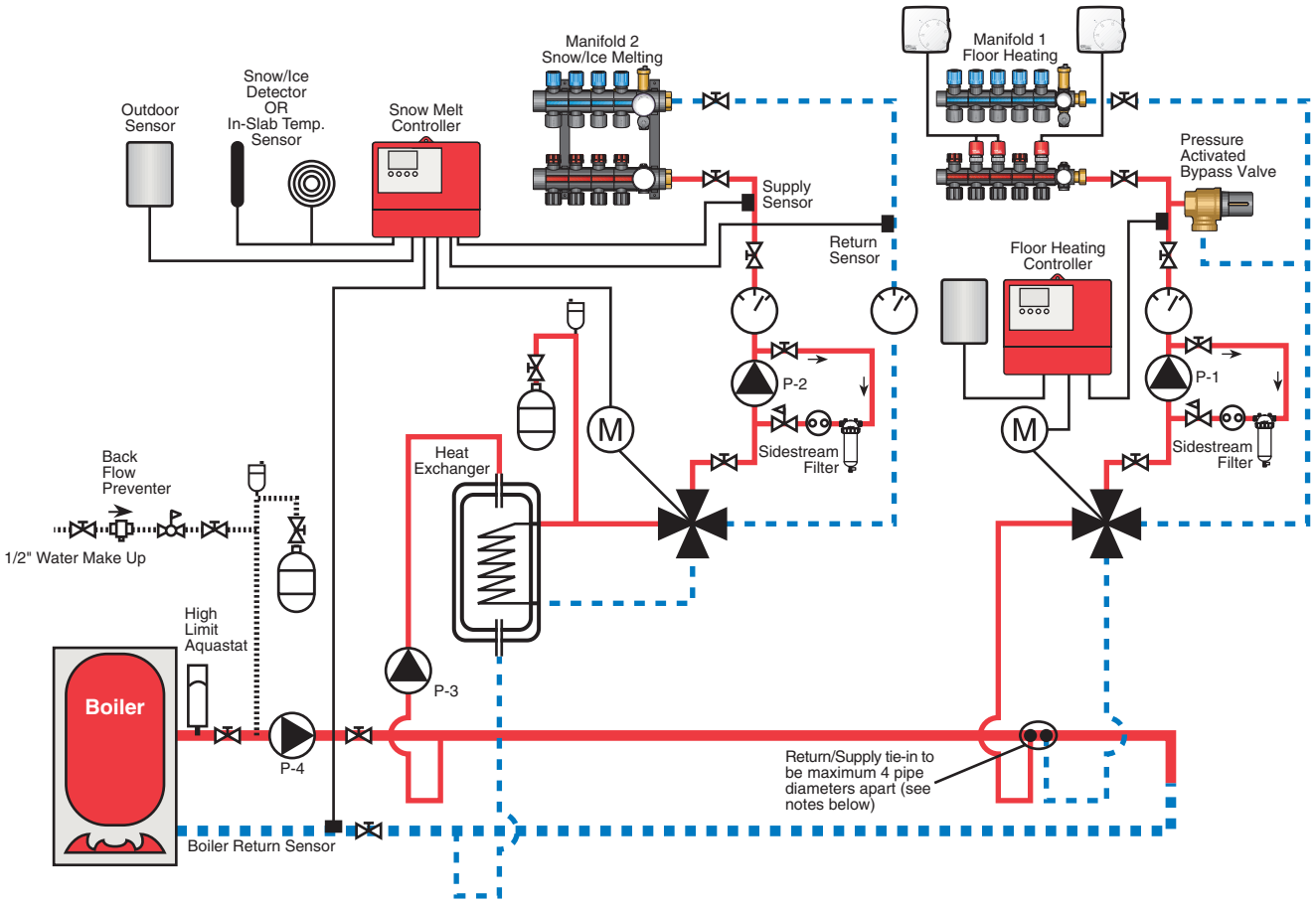
3 Circuit (Fully Auto. Mod. Snowmelt & Fl. Heat. c/w Heat Exchanger)

September 6, 2006 - **SNOW 2.1**

Application:

Cast iron high mass boiler c/w 3 circuits

(two low temp. circuit - fully automatic modulating water temp for floor heating & snow melting.)
(one high temp. circuit off boiler primary loop for snow melt heat exchanger.)



Note: • To maintain proper flow through boiler, piping MUST be completed as shown. ie. IFHWH supply & return connections to be tied in BEFORE the mixing valve!
• Thermal traps must be used to prevent uncontrolled heat-up from hot water migration. (drop piping a minimum of 16")

Note:

- Air vents, expansion tanks, pressure relief valves etc. For boiler as per local codes.
- Drawings are for HeatLink® suggested system layout only. User must determine if system layout will work for their particular application!
- Use isolation ball valves for all circuits and components.
- Expansion tank sizing for the snow melting circuit to take into account the ratio of glycol freeze protection in the system.

Control sequence:

- Indoor/outdoor and Snow Melt control units provide the correct water temperature for the HeatLink® radiant floor heating & snow melting systems. By correlating outside air temperature, supply water temperature & room temperature for the floor heating circuit, supply and return system water, boiler return water & slab temperature for the snow melt circuit the control units then activate their respective 4-way mixing valve motors which in turn modulate the supply water temperatures to the floor & snow melting circuits. (See ELECT 1.12 & 1.13).
- Boiler to fire either: 1) Independently on its own operating aquastat which in turn controls boiler water temperature or 2) By activation through a relay of the controllers. APPLICATION TO USE OPTION (____). (Note: Wire gas valve in series with high limit safety aquastat.)
- Primary pump (P-4) to be wired through a relay which will be activated by the snow melt or floor heating controllers (see ELECT 2.1).
- Pumps (P-1, P-2, P-3) to be wired directly with their own disconnect switches. Pumps to operate either: 1) Continually or 2) By activation through a relay of the respective indoor/outdoor or snowmelt controllers. (See ELECT 2.1)
  FOR THIS PARTICULAR APPLICATION P-1 TO OPERATE AS PER OPTION (_____), & P-2, P-3 AS PER OPTION (____)