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.
  IF HWH 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")
• 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 2.7).
• 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 (____)