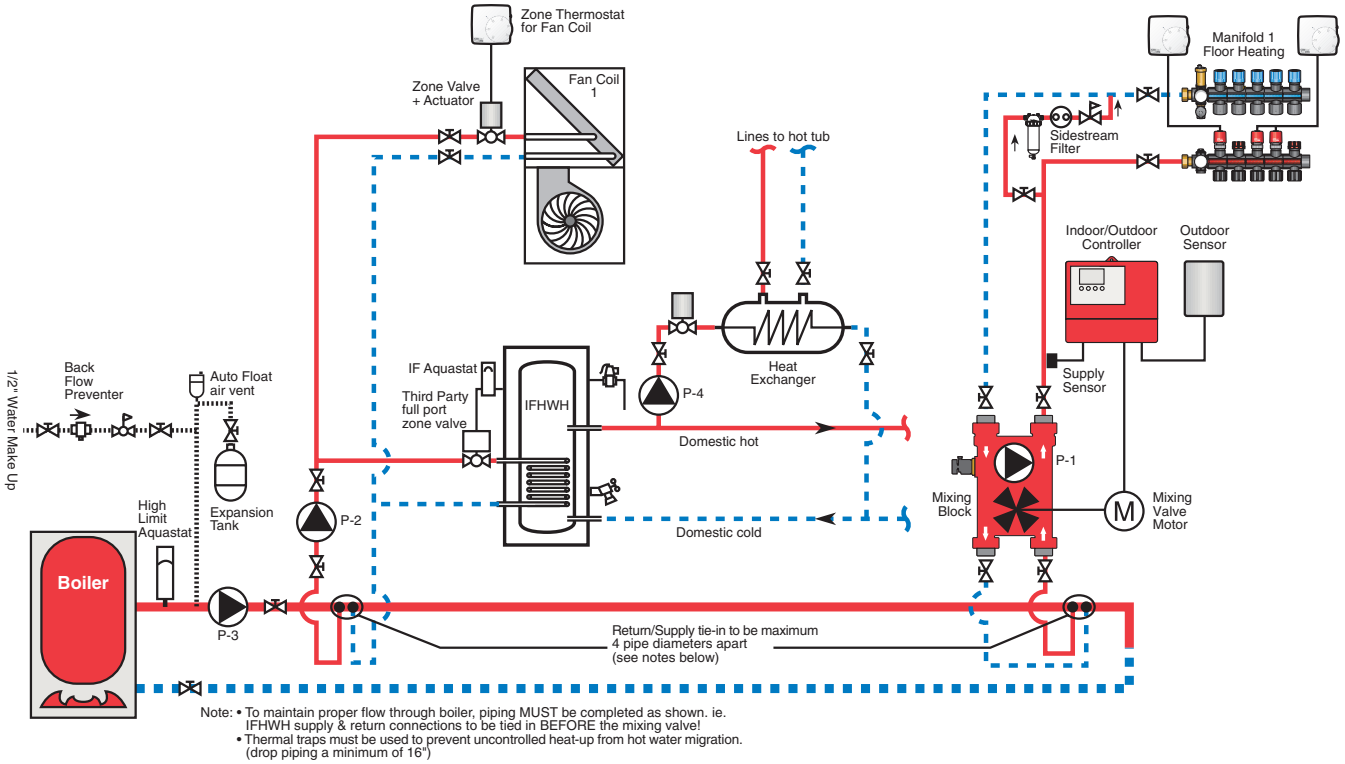
4 Circuit (Mod. Fl. Ht. plus Fan Coil, IFHWH)

July 17, 2008 - **TECH 5.5 MB**

Application: **4-Way Mixing**

Cast iron high mass boiler and 4 circuits
(one low temp. circuit - fully automatic modulating water temp. for floor heating)
(two high temp. circuits off boiler primary loop; fan coil, indirect fired hot water heater)
(one high temp. circuit off indirect fired hot water heater domestic loop for hot tub heat exchanger)



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.

Control Sequence:

- Indoor/outdoor control unit provides primary control for the HeatLink® radiant floor system. By correlating outside air temperature, supply water temp. & (optional) room temperature, the control unit then activates the 4-way mixing valve motor which in turn modulates the supply water temperature to the floor. Secondary floor heating control is provided by individual room thermostats operating actuators. For the forced air system the zone thermostat will open the zone valve and in turn activate the fan coil. (See ELECT 1.2) (For rough-in wiring instructions using StatLink® controls see ELECT 1.6)
- Boiler to fire either: 1) Independently on its own operating controls or 2) By activation through a relay of the indoor/outdoor controls. APPLICATION TO USE OPTION (____).
- Primary pump (P-3) to be wired through a relay in series with the thermostats of the fan coil as well as the indoor/outdoor controller. (Some boilers may have an internal relay which can be used to bring on primary pump on call for heat.) (see ELECT 5.5)
- Pumps (P-1 to P-4) to be wired directly with their own disconnect switches. System pumps P-1 & P-2 to operate either:
  1) Continually or 2) By activation through a relay of the indoor/outdoor plus StatLink® controls (see ELECT 5.5).
  FOR THIS PARTICULAR APPLICATION P-1 & P-2 TO OPERATE AS PER OPTION (_____).
- Room Temperature unit (R.T.U. unit placed in one floor heating zone/area only) compensates for average internal heat gains or losses in the building due to solar radiation, many occupants, additional heat sources (i.e. fireplace etc.) or air infiltration.
- Hot tub heat exchanger (P-4; bronze or stainless steel pump required) to be wired through a relay in series with the aquastat of the hot tub zone valve (see ELECT 5.5).