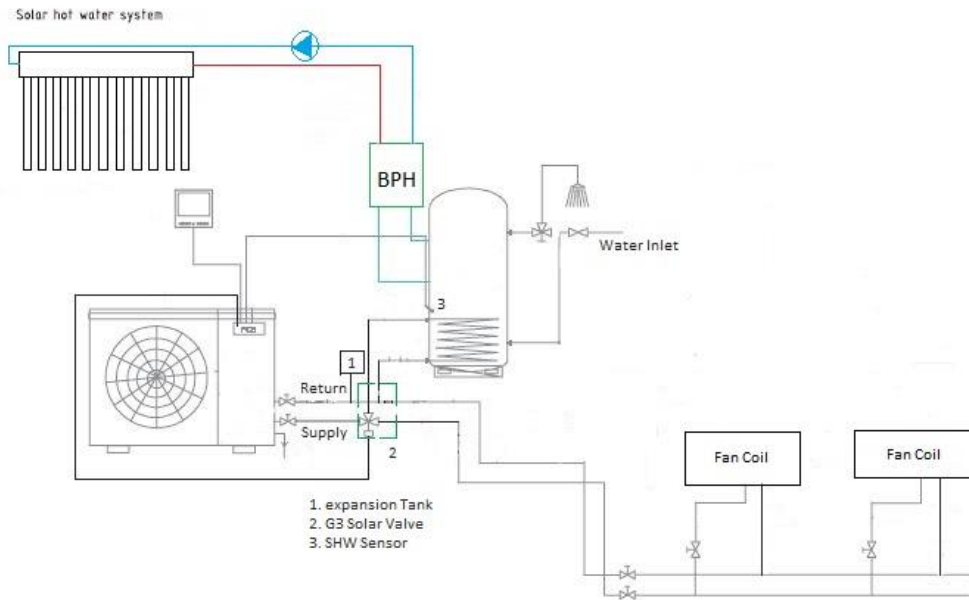




NOTE- All drawings assume normal Chiltrix layout of FCUs for heating/cooling. Fine details of the FCU loop omitted. All specifications are subject to change.

Drawing #1

Shows Solar Hot Water (SHW) system with CX30 as backup.



Operation: Chiltrix system provides heating and cooling via FCUs and serves as backup to solar water heater tank (potable water). Water heating backup has CX30 priority. When the tank temperature cannot be satisfied by solar, CX30 runs temporarily in water heating mode to quickly heat the water tank. The tank contains potable water.

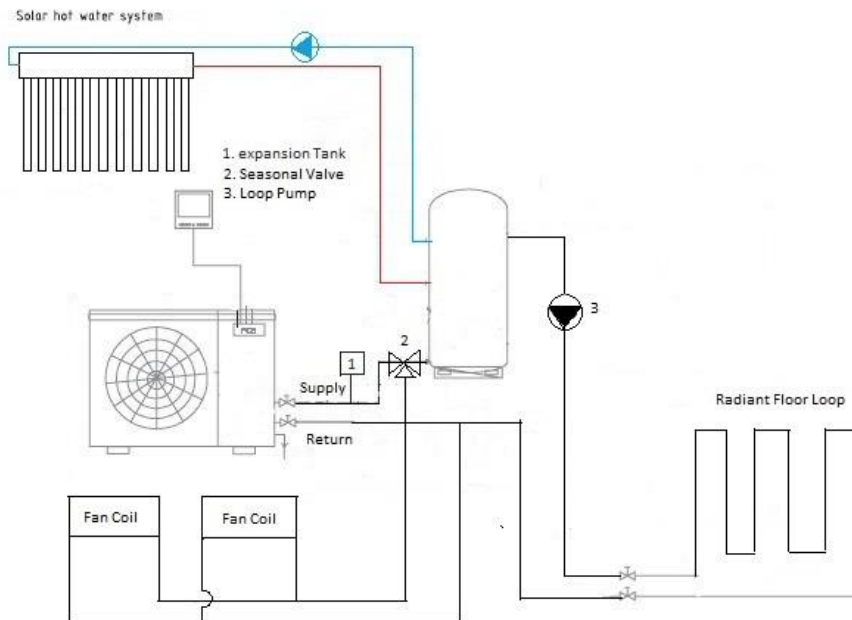
Not shown - adding a small buffer tank to the FCU supply loop may be a desired option when using a larger sized SHW tank.

*Requires CX G3 solar valve and CX DHW tank sensor.



Drawing #2

Shows CX30 used with a solar radiant floor loop for heating and FCUs which are used for cooling season. The primary floor loop heating is performed by solar and the CX30 serves as a backup. The FCU loop is disengaged during heating season. The tank and floor loop is disengaged from the Chiltrix system during cooling season.



Operation:

The CX30 provides cooling through FCUs and serves as backup heat source for the radiant floor loop. The tank is part of the loop and contains glycol. There is no CX30 water heating function.

Option:

The glycol tank could have a coil installed to use solar energy to pre-heat for a SHW tank (not shown) during cooling season, if desired. Backup for SHW would come from a different source.

* Requires CX G3 Valve

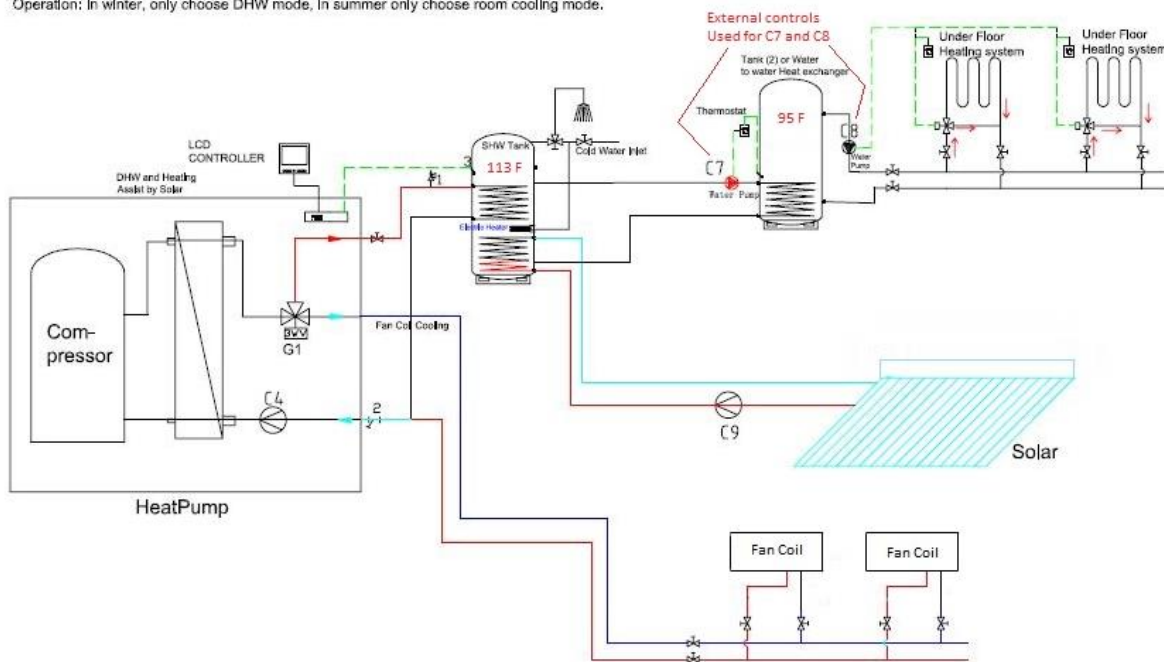
Drawing #3

Shows CX30 used with a solar radiant floor loop for heating and FCUs which are used for cooling season. The CX30 backs up solar for both radiant floor (heating season) and DHW tank (all seasons).

Connection for HC series Multifunctional heat pump application with solar assist for room heating and DHW Separate Room Cooling Circulation

- 1. Air discharge valve ; 2. Water filter 3. DHW tank sensor
- G1 Is Electric 3 way valve to switch DHW and AC cooling.
- C4 Main water pump ;
- C7 water pump Is controlled by tank2 thermostat, when lower than 35c, start C7
- C8 water pump Is controlled by radiant floor heating thermostat, when room need heating start C8
- C9 Is controlled by solar thermostat

Operation: In winter, only choose DHW mode. In summer only choose room cooling mode.



Operation:

The CX30 provides cooling through FCUs and serves as solar backup for radiant floor loop. The CX30 also provides backup heat for SHW tank.

- * Requires CX G1 valve
- * Requires CX DHW Tank Sensor
- * Requires external controls for radiant loop