

Section 2.10

Zone Pumps

The Network System supports up to 16 zone pumps through the Zone Pump Control (ZPC) (A9014000). Each zone pump requires a Pump Relay (A9013030) and is limited to a maximum rating of 3.0 amps. Zone pumps can be configured for use in radiant, baseboard and hot- and cold-water applications. Make zone valve assignments when setting up thermostats; see **Section 3.4: Thermostat Setup 2**.

This section covers the following topics:

- Accessing the Zone Pump screen
- Naming zone pumps
- Viewing zone pump information
- Adding a zone pump start delay
- Setting a zone pump for heating and/or cooling
- Assigning a zone pump to Water Channel 6 (WC 6)
- Setting zone pump operation during a high-fire demand
- Viewing supply and return temperatures

Before proceeding, make sure the following steps are complete:

- All Uponor Configuration Tool (UCT) software (A9090000) components are installed (**Section 1.5**).
- The computer is correctly connected to the Network System (**Section 1.6**).
- The installer is familiar with using UCT elements (**Section 1.7**).

Accessing the Zone Pump Screen

Refer to the following instructions to access the Zone Pump screen.

1. From the **Main Menu**, click the **Zone Pumps** button shown in **Figure 2.10-1**. This will open the Zone Pumps screen shown in **Figure 2.10-2**.
2. Click the **Zone Pumps 1-8** button or **Zone Pumps 9-16** button, shown in **Figure 2.10-2**, to bring up one of the Zone Pumps screens; an example is shown in **Figure 2.10-3**.

Note: If the ZPC is not connected to and communicating with the other cabinet controls when trying to access one of the Zone Pumps screens, a spinning hour glass will display. Press the **Main Menu** or **Previous Menu** button to close the hour glass, and then troubleshoot the communication or connection problem.

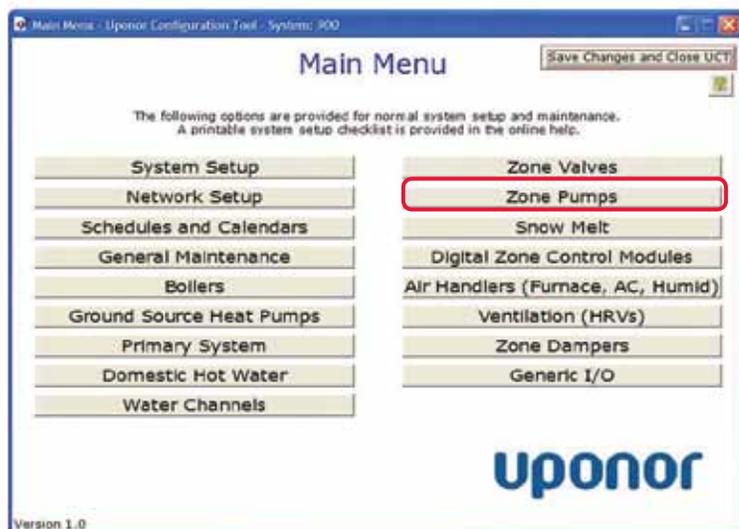


Figure 2.10-1: Main Menu Screen



Figure 2.10-2: Zone Pumps Screen

Naming Zone Pumps

The UCT software allows a user to name the zone pumps. Having a name onscreen is more convenient than referring to a wiring schematic to see the association of the zone valve. Refer to the following steps to name a zone pump.

1. On the Zone Pumps screen, click in a Name or Service Area box. See the red arrow in **Figure 2.10-3** for an example.
2. Enter a name for the pump or zone. Use a short, descriptive name as the area only allows a limited number of characters.
3. Repeat naming process for each zone pump.

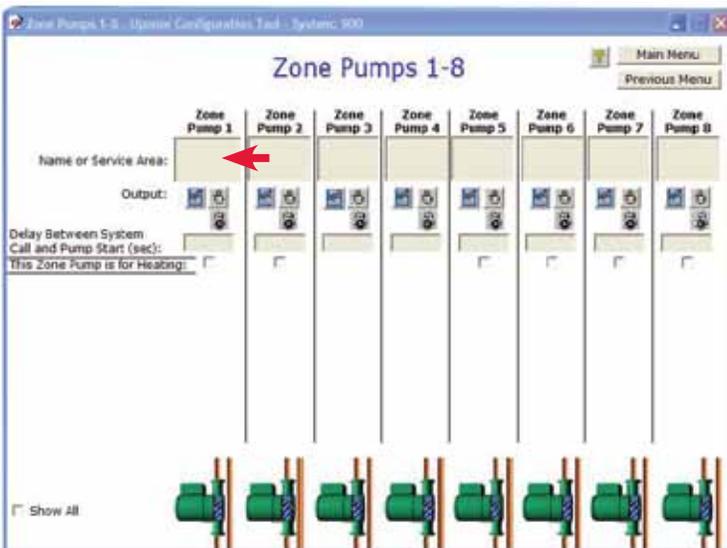


Figure 2.10-3: Zone Pumps 1-8 Screen

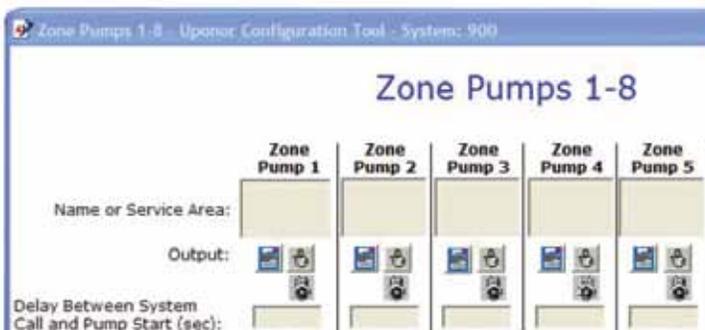


Figure 2.10-4: Zone Pump Icons

Viewing Zone Pump Information

Icons provide information about each zone pump and allow the user to access certain zone pump features. **Figure 2.10-4** shows some of the icons described below.

Status: A pump icon near the bottom of the screen shows the status of a zone pump. An animated icon means the pump is active.



Manual Operation: This button allows the user to turn a zone pump on or off manually. The Network System cannot override this setting.



Caution Symbol: This symbol displays below the Manual Operation icon when the pump or output is set to Manual.



Runtime Icon: Clicking this icon opens a dialog box that shows the total number of hours the pump has run. Runtime includes the time the pump was set to the manual on state.



Commission Checkbox: This icon displays if the zone pump has not been tested (commissioned).

Note: See **Section 1.7: Using UCT Elements** for more information about these icons.

Adding a Zone Pump Start Delay

Depending on the sequence of operation, it may be necessary to delay when a pump starts after receiving a call. The delay allows another device to start before the pump does. Refer to the following steps to setup a start delay.

1. On the Zone Pumps screen, click in the Delay Between System Call and Pump Start (sec) box; see the red arrow in **Figure 2.10-5**.
2. Enter the delay period in seconds. The text will be pink when entered and change to black when the ZPC accepts the value.
3. Repeat for additional zone pumps as needed.

Setting Zone Pumps for Heating or Cooling

Each zone pump can be setup for heating and/or cooling. Make settings by checking or unchecking the heating and cooling boxes; see the red arrow in **Figure 2.10-6**. By default, all zone pumps are set to provide heating.

The cooling checkbox only affects operation on the air-zone pump setting (e.g., chilled-water coil). If both heating and cooling checks are set for an air-zone pump, the pump will turn on when forced-air heating or cooling is running.

Assigning a Zone Pump to Water Channel 6

When modulating-condensing (mod-con) boilers are used with zone pumps, the boiler(s) will act as Water Channel 6 (WC 6 or Mix). The ZPC recognizes that the boiler(s), rather than a secondary-mixing device, will control the water temperature to the radiant floors, snow melt or other heating application. If a boiler is set up to be WC 6 (as outlined in **Section 2-5: Boilers**), the Zone Pump Attached to WC 6 checkboxes will display. See the example shown in **Figure 2.10-7**. Check the appropriate boxes for the zone pump to turn off if the maximum supply water temperature for the mixing settings is exceeded.

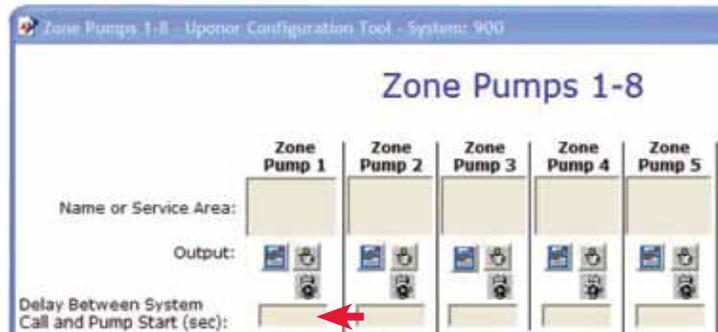


Figure 2.10-5: Zone Pump Start Delay

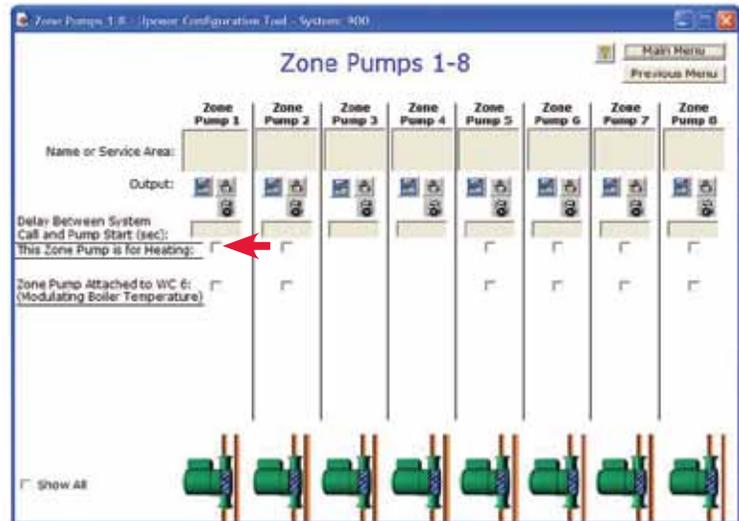


Figure 2.10-6: Zone Pump Heating and Cooling Checkboxes

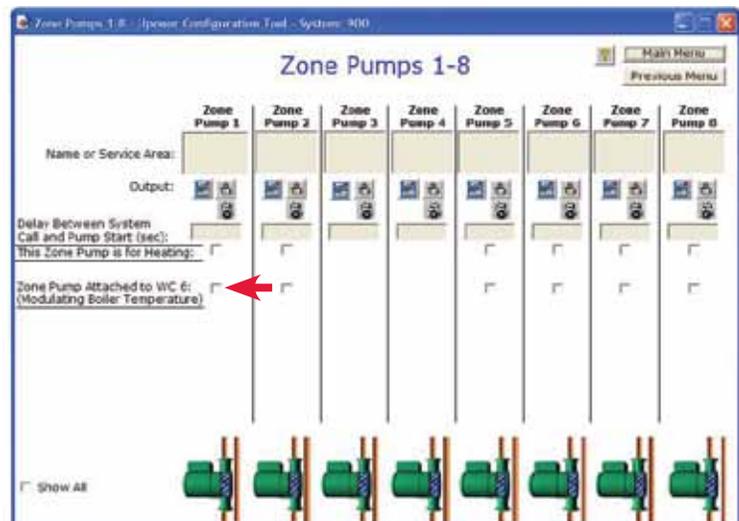


Figure 2.10-7: Zone Pump WC 6 Checkbox

Setting Zone Pump Operation During a High-fire Demand

Depending on the configuration of the piping, it may be necessary to shut off or turn on certain pumps during a demand for high-temperature water. This feature is used with mod-con boilers. See the checkboxes indicated by the red arrow in **Figure 2.10-8**.

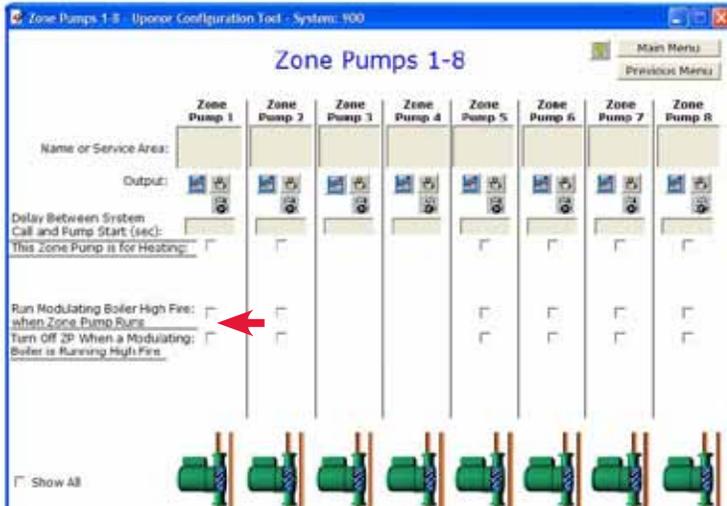


Figure 2.10-8: Zone Pump Options

Note: These checkboxes will only be visible when the Single Modulating Boiler with High Fire option is checked on Boilers screen. See **Section 2.5: Boilers for more information**.

Some devices, such as radiant panels, must be protected from high-temperature water. Check the Turn Off ZP When a Modulating Boiler is Running High Fire box for the zone pumps that serve these devices. Checked zone pumps will be shut off until the high-temperature demand is satisfied.

Alternately, a zone pump can be set up to force the boiler into high fire if needed to provide high-temperature water for devices such as a hot-water coil or baseboard. Check the Run Modulating Boiler High Fire when Zone Pump Runs box for zone pumps that support devices or areas that require high-temperature water.

Viewing Supply and Return Temperatures

If a water channel has a Dual Sensor (A9013001), the associated zone pump will display supply and return temperatures. See the example shown in **Figure 2.10-9**.

Note: Supply and return temperatures display only if a Dual Sensor is connected to the Pump Relay to a Zone Pump port on the ZPC. A reading of -58°F (-50°C) indicates a connection problem or a problem with a Cat5 cable.

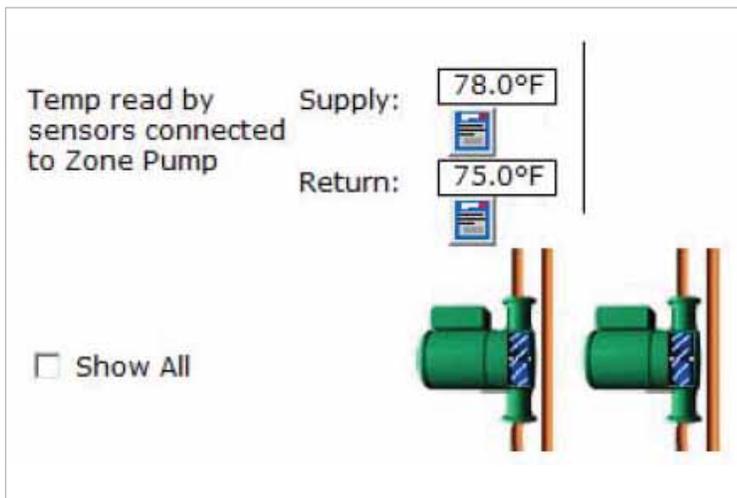


Figure 2.10-9: Zone Pump Supply and Return Sensors