



## Electronic Controls For Residential Hydronic Heating

# AQ2000 Controls

EASY TO INSTALL. EASY TO USE.



	AQ250 Relay		AQ25A Relay "Plus"		AQ251 Reset			AQ252 Reset And Mixing Injection	
Boiler Control Panels	AQ2504B2	AQ2504B4	AQ25A4B2	AQ25A4B4	AQ2511B0	AQ2514B2	AQ2514B4	AQ2524M2	AQ2524M4
<b>Key Features</b>	Pumps or 2-Wire Valves	4-Wire Valves	Pumps or 2-Wire Valves	4-Wire Valves	1 Zone Reset - Pumps or Valves	Pumps or 2-Wire Valves	4-Wire Valves	Pumps or 2-Wire Valves	4-Wire Valves
Use dedicated 2-wire "polarity insensitive" communicating thermostats	•	•	•	•		•	•	•	•
Zone synchronization	•	•	•	•	•	•	•	•	•
Boiler post purge	•	•	•	•	•	•	•	•	•
Freeze protection	•	•	•	•		•	•	•	•
Pump/valve exercise	•	•	•	•	•	•	•	•	•
Integral domestic hot water management	•	•	•	•	•	•	•	•	•
Domestic hot water priority (override) protection	•	•	•	•	•	•	•	•	•
Automated test feature for quick start-up and simple troubleshooting	•	•	•	•	•	•	•	•	•
Boiler short cycling protection	•	•	•	•	•	•	•	•	•
Expandable up to 64 zones by using AQ254 panels	•	•	•	•	•	•	•	•	•
Customizable control settings and schedules allow for greater level of control and comfort			•	•	•	•	•	•	•
Allows outdoor temperature to be displayed on all thermostats			•	•		•	•	•	•
Central set-back schedules available			•	•		•	•	•	•
Automated purge feature for quick start-up			•	•	•	•	•	•	•
Loop temperature adjustment using indoor feedback (load adaptive reset) or indoor/outdoor feedback (outdoor reset)						•	•	•	•
The ability to control 2 temperatures with injection pump/valve or mixing valve devices								•	•

## Enhancements - August, 2008

Ability to coordinate 1 zone of A/C with multiple zones of cooling when used with an AQ1000TP2 programmable thermostat			•	•		•	•	•	•
Fully compatible with all Boilers - including modulating/condensing			•	•	•	•	•	•	•
Separate setpoint targets for boiler maximum and DHW			•	•	•	•	•	•	•
DHW vacancy setpoints			•	•	•	•	•	•	•
Option to use Return Sensor as DHW sensor			•	•	•	•	•	•	•
Optional Auxiliary Out (low voltage) closure on DHW call			•	•	•	•	•	•	•
Optional Auxiliary Out (line voltage) closure on DHW call			•	•	•	•	•	•	•
Optional Auxiliary Out (line voltage) closure on Heat call			•	•	•	•	•	•	•
Heat Demand Priority and Priority Override			•	•	•	•	•	•	•
Data logging of relay activity			•	•	•	•	•	•	•
Ability to edit all zone settings at once from central control panel			•	•		•	•	•	•
Daylight Savings Time auto change over			•	•		•	•	•	•



## AQ2000 Expansion Panels




Key Features	AQ255 and AQ257 Expansion Zoning Panels				AQ254 Add-A-Temp Expansion Panel
	AQ2554V2	AQ2574V4	AQ2554P2X	AQ2558P2X	AQ2541E0
	4 Zones of 2-Wire Valves	4 Zones of 4-Wire Valves	4 Zones of Pumps	8 Zones of Pumps	Use with AQ255 or AQ257 Expansion Zoning Panels
Number of zones per panel	4	4	4	8	
38 VA transformer included	Yes	Yes	No	No	
Convenient 2-wire "polarity insensitive" communicating thermostats	•	•	•	•	
Auto test function to check out all zones at system start-up	•	•	•	•	
Status LEDs for easy diagnostics	•	•	•	•	
Zone Synchronization	•	•	•	•	•
Adds an additional reset water temperature to any main control panel					•
Mixed loop temperature is controlled by a variable speed injection pump or motorized mixing valve					•
Extends capacity of network by 16 zones for each expansion control panel installed					•

## AQ1000 Thermostats



Key Features	AQ1000TN2 (Non-programmable Thermostat)	AQ1000TPN2 (Programmable Thermostat)
Dedicated communicating thermostat (for use with AQ2000 controls only)	•	•
Indoor and Outdoor temperature is shown on display (when used with programmable AQ2000 Control Panels)	•	•
Convenient 2-wire "polarity insensitive" installation for quick and easy wiring of both retrofit and new construction jobs	•	•
Zone settings for all thermostats can be programmed at main Control Panel to save time	•	•
Can display temperature as Fahrenheit or Celsius	•	•
Easy-to-read backlit display	•	•
Can be used with AQ12C20 floor sensor for in-floor heating installations	•	•
Non-volatile memory retains zone settings indefinitely, even after extended power loss	•	•
Can program thermostats with min/max setpoints for air and/or floor temperatures, AND "lock out" of individual zone thermostats from the central control panel	•	•
Number of unique programs per day	2	4
Programmable		•
Controls 1 zone of cooling		•
Date and time of day displayed on thermostat		•
Controls Heating and Cooling		•

## Sensors

<b>AQ12C11</b>  <b>Supply/Return Sensor</b> <ul style="list-style-type: none"> <li>• 10 feet of high temperature PVC jacketing which allows direct contact with hot boiler piping</li> <li>• Sufficient lead length to connect directly to AQ2000 control panel without the need for splicing</li> </ul>	<b>AQ12C10</b>  <b>Outdoor Sensor</b> <ul style="list-style-type: none"> <li>• 10 feet of weather-resistant jacketing that allows splicing of the sensor to be done inside the building</li> <li>• Can be connected up to 500 ft away from the AQ2000 panel without loss of signal or data integrity problems</li> <li>• Includes mounting bracket.</li> </ul>	<b>AQ12C20</b>  <b>Slab/Floor Sensor</b> <ul style="list-style-type: none"> <li>• Connects directly an AQ1000 thermostat</li> <li>• Comes with 15 feet of flexible lead wire</li> <li>• Can be connected up to 500 ft away from the AQ1000 thermostat without loss of signal or data integrity problems</li> </ul>
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