Some hydronic system controls are basic and have limited features and functionality. Others are so complex that they are difficult to install and use or service. With functionality right out of the box, and flexibility to select advanced features - Aquatrol Hydronic Controls fall right into place.

Honeywell Aquatrol Hydronic Controls combine functionality with ease-of-use, making them the perfect choice for new or retrofit applications. When developing the Aquatrol, Honeywell drew upon over 100 years of control, hydronic, and zoning technology knowledge and experience gained through over 50 years as a leading hydronics and zoning components supplier in both Europe and North America. The result was the Aquatrol, which redefines power, simplicity and energy savings in electronic boiler controls.

Simply put, Honeywell is one of the most trusted names in both controls and hydronic components. Simplicity and power — that’s the Aquatrol.
Easy To Install. Easy To Use.

Honeywell Aquatrol Hydronic Controls are designed to keep even the most complex systems simple.

EASY SELECTION
Intuitive selection tool lets you answer just a few simple questions and gives you the exact Bill of Materials and wiring configuration for the job
- Available on CD ROM, or online at customer.honeywell.com/aquatrol

EASY INSTALLATION
Ready to use out of the box
- Pre-assembled with transformer module, control module, and – for most panels – a zoning module
- Snap-on expansion panels for design versatility and clean installation

EASY PROGRAMMING
Pre-programmed with most popular settings
- Armchair programmable – program at your desk and take to the job site ready-to-install
- Auto test & purge features to prepare system at start-up

EASY TROUBLESHOOTING
Diagnostic descriptions of system activity provided on Backlit screen and zone LEDs during setup or in the event of a malfunction

“Other products out there that I have dealt with are very difficult to set up, very frustrating by the time you are done and usually you have to go back a couple times and re adjust them. The Honeywell Aquatrol panel is amazing, it's very easy to install and to configure. You are going to get out of it what they say you are going to get out of it.
– Anonymous Hydronics Contractor
Honeywell has included a set of standard features on every Aquatrol Control Panel model, so you can enjoy peace of mind knowing that you left the homeowner with an efficient, dependable system.

**ENERGY SAVINGS**

**No Wasted Energy** – The Aquatrol provides **zone synchronization**, which saves energy by ensuring that all zones that require heat operate at the same cycle, therefore reducing random short cycling of the boiler and extending the life of the boiler.

  Additionally, **boiler short-cycling protection** keeps the boiler on for at least 2 minutes, and prevents the boiler from firing for at least 2 minutes after the last cycle.

  Finally, **boiler post purge** saves energy by delivering excess retained heat to zones where it can be used.

**More Hot Water** – The Aquatrol system provides **domestic hot water priority and priority override**. This ensures adequate hot water supply while still supplying sufficient hot water to heat a home, even on the coldest days. It also has heat demand priority and priority override which allows for auxiliary loads (pool, spa, etc.) if desired.

**EQUIPMENT PROTECTION FEATURES**

**Keeping in Shape** – During periods of inactivity, the Aquatrol periodically **exercises all pumps and valves** to extend equipment life and prevent seasonal start-up problems.

**Freeze Protection** – The Aquatrol **activates valves and pumps** associated with any zone that is disconnected from the system or if the boiler water temperature drops below 50° F.

**Consistent Checkout** – After installation, the Aquatrol’s intelligent checkout process will **automatically perform a test to confirm the equipment is in working order** by energizing and de-energizing all inputs and outputs in sequence, which means fewer callbacks for your business.

**SYSTEM COMPATIBILITY**

**Any Thermostat** – The Aquatrol works with any* thermostat, allowing you the option to easily retrofit an existing job, upgrade to a top-of-the line Honeywell thermostat, or offer enhanced functionality with Aquatrol communicating thermostats.

**Any Size** – The Aquatrol is **easily expandable up to 64 zones** with snap-on expansion zoning and control panels – making it the perfect fit for even the largest jobs.

**Any System** – Even the smartest boilers need zoning controls. The Aquatrol provides advanced control of modulating/condensing boilers and domestic hot water tanks.

*Not recommended for use with mechanical thermostats.
Upgrade for Additional Features To Fit Your Job

In addition to the standard features present on every Aquatrol Hydronic Control model, you can upgrade to a model with additional features to fit your job, and offer increased energy savings to your customers.

ENERGY SAVINGS

Efficient – The Aquatrol has Outdoor Reset, which saves an average of 15% off energy bills* by automatically adjusting the boiler temperature based on outdoor temperature (AQ251 and AQ252 models).

Outdoor temperature can be displayed on all communicating thermostats, allowing homeowners to make educated decisions about their heating & cooling needs (AQ251 and AQ252 models).

Additionally, the Aquatrol has central set-back schedules (wake, leave, return and sleep) available, which optimizes energy savings throughout the whole system based on a homeowner’s schedule when used with Aquatrol communicating thermostats (AQ25A, AQ251 and AQ252 models).

When used with programmable thermostat, your customers can achieve the ultimate in energy savings.

INTELLIGENCE

Diagnostics – The Aquatrol has on-screen diagnostics information, allowing you to quickly and easily identify and correct system issues (AQ25A, AQ251 and AQ252 models).

Memory – The Aquatrol remembers the run time of all zones in a system by data logging the relay activity. This feature is ideal for identifying system problems or tracking energy consumption in multi-family dwellings (AQ25A, AQ251 and AQ252 models).

Protection – The Aquatrol protects a system by automatically purging excess air before system start-up (AQ25A, AQ251 and AQ252 models).

Multi-tasking – For more advanced systems, the Aquatrol has the ability to control multiple water temperatures – up to 5 reset temperatures with an expansion control panel (AQ252, or with AQ254 models).

“The Aquatrol can do so much that homeowners are interested in today, including energy savings and prolonging the life of the equipment. It’s great for either new construction or retrofit applications. It is also very user-friendly. What we do, is we build the boiler board at the shop not out at the job site. We will build it and program it in the shop and then we send it out into the field to save time on the job. We spec it all the time. This is what we recommend, we don’t recommend anything else.”

– Brian Streich, Cokato, MN

*Honeywell Inc. 1979 Study; Control Systems Providing Energy Savings with Single and Multizone Hydronic Heating. 15% is the average energy savings and can only be achieved assuming Domestic Hot Water Priority is off and the unit is installed as directed.
Control Panels

**AQ252 Reset Control Panels For Multiple Temperatures**
All the great features of AQ251 plus:
- Ability to control 2 water temperatures
- Expandable up to 64 zones with 5 temperatures when used with AQ254

**AQ251 Reset Control Panels**
All the great features of AQ25A plus:
- Outdoor reset for energy savings

**AQ25A Relay “Plus” Control Panels**
Loaded with standard features plus:
- Backlit screen for easy setup and diagnostics
- Central setback of all zones
- Date logging of relay activities

**AQ250 Relay Control Panels**
Loaded with standard features
- Expandable up to 16 zones, plus up to 64 zones with AQ254 panels
- Zone synchronization
- Domestic hot water priority and priority override

**AQ251 Boiler Reset Control Panel**
- Outdoor reset for up to 15% energy savings
- Compatible with existing zoning relay panels
- Perfect for retrofit applications

**AQ254 Add-A-Temperature Injection/Mixing Expansion Panels**
- Adds an extra reset water temperature
- Expands network capacity by an additional 16 zones
- Add up to 3 AQ254 panels to an Aquatrol zone panel

**AQ255 and AQ257 Expansion Panels**
- Control up to either 4 or 8 zones
- Zone synchronization for efficient operation
Communicating Programmable Thermostats
- Communication with Aquatrol panels for enhanced capabilities
- 7-Day programmable with up to 4 unique programs per day
- Controls both heating and cooling
- 2-wire polarity insensitive for easy installation
- Date and time displayed
- Outdoor temperature displayed on-screen

Communicating Non-Programmable Thermostats
- Communication with Aquatrol panels for enhanced capabilities
- 2 unique programs per day
- Controls heating only
- 2-wire polarity insensitive for easy installation
- Outdoor temperature displayed on-screen

Enhanced Communication Capabilities
Only available when Control Panels are used with Aquatrol Communicating Thermostats

Protection – The Aquatrol panel offers zone-by-zone freeze protection when used with communicating thermostats.

Time Savings – Setpoint, setback, and lockout of all Aquatrol Communicating thermostat zones can be programmed all at once from the main Aquatrol control panel to save time on the job.

Radiant Sensing – Aquatrol Communicating thermostats can connect to a floor sensor to control both room and floor temperature from a single, homeowner-friendly device.

Conventional Thermostats†
Aquatrol Hydronic Controls have the flexibility to also work with conventional Honeywell and other brands of thermostats in applications where communication features are not required. This allows you to easily install a retrofit job, and offer the homeowner flexibility in their thermostat control options.
- Easily retrofit an existing job
- Add up to 2 stages of heating and cooling
- RedLINK Wireless thermostats for difficult installations or accessory upsell opportunity

†Not recommended for use with mechanical thermostats.
Installing And Connecting Components Is Easy With Aquatrol

Transformer Module

- 38 VA capacity
- Powerful enough to drive internal electronics, up to 16 communicating thermostats and 4 zone valves** without needing to add external transformers

Control Module

- Large dot matrix display with plain language menus
- Integrated control of Domestic Hot Water — priority and priority override

** Applies to most electric and thermally actuated zone valves, like Honeywell V8043E1012 or MT-4. High power-consuming zone valves (such as Taco heat motor valves) will require additional (up to four times more) transformer capacity (VA).
Installing and connecting components is easy with Aquatrol Expansion/Diagnostics Thermostats.

The convenient channel connectors allow you to easily add expansion zoning panels without running wires outside of the panels. This eliminates the risk of having wires exposed to the homeowner outside of the panel, and makes for a clean and organized installation.

Zoning Module

- LED lights for valuable diagnostics
- Easily switch from zone valves to pumps with the AQ15540B zoning module
- Zones can be set to operate a group pump
- Expansion zoning panels can operate different types of zone equipment — one panel may control 4 pumps and another may control 4 zone valves

Replacement Module Part Number

The convenient channel connectors allow you to easily add expansion zoning panels without running wires outside of the panels. This eliminates the risk of having wires exposed to the homeowner outside of the panel, and makes for a clean and organized installation.
Aquatrol Selection Chart

Aquatrol Control Panels - Single and Multi-Zone Systems

<table>
<thead>
<tr>
<th>MODEL</th>
<th>TYPE</th>
<th>APPLICATIONS</th>
<th>ENERGY-SAVINGS FEATURES</th>
<th>EQUIPMENT PROTECTION FEATURES</th>
<th>HOT WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Expandable to 8 zones</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Number of zones limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Direct control of modulating/conding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Boiler Post Purge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Temperature adjustment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Indoor/outdoor feedback</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Freon Protection</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Pump Valve Exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Integral Domestic Hot Water Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Programmable</td>
<td>Domestic Hot Water Priority (override)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Multi-Zone Controls

- **Aq252 Reset & Mixing Injection**
  - Aq25242B: Pumps or 2-Wire Valves
  - Aq25244B: 4-Wire Valves

- **Aq251 Reset**
  - Aq25142B: Pumps or 2-Wire Valves
  - Aq25144B: 4-Wire Valves

- **Aq25A Relay “Plus”**
  - Aq25A42B: Pumps or 2-Wire Valves
  - Aq25A44B: 4-Wire Valves

- **Aq250 Relay**
  - Aq25042B: Pumps or 2-Wire Valves
  - Aq25044B: 4-Wire Valves

Single Zone Controls

- **Aq251 Reset**
  - Aq25110B: 1-Zone Reset Pumps or Valves

Aquatrol Expansion Panels

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
<th>EXPANSION CONTROL FUNCTIONS</th>
<th>ENERGY-SAVINGS FEATURES</th>
<th>EXPANSION ZONING PANEL FEATURES</th>
<th>WARRANTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Add-on to an existing Aquatrol Hydronic Control Panel</td>
<td></td>
<td></td>
<td></td>
<td>LCD *</td>
</tr>
</tbody>
</table>

Add-A-Temp Expansion Control Panel

- **Aq254 Add-A-Temp Expansion Control Panel**
  - Aq25400B: Use with Aq255 or Aq257 Expansion Zoning Panels

Expansion Zoning Panels — to expand an Aquatrol Hydronic Control panel (250,25A,251 or 252 series)

- **Aq255 Expansion Zoning Panels for pumps**
  - Aq25542B: 8 Zones of Pumps
  - Aq25544B: 4 Zones of Pumps
  - Aq25742B: 4 Zones of 2-Wire Zone Valves

- **Aq257 Expansion Zoning Panel for zone valves**
  - Aq25744B: 4-Zones of 4-Wire Zone Valves

Aquatrol Communicating Thermostats

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SCHEDULE OPTIONS</th>
<th>USER INTERFACE</th>
<th>APPLICATION</th>
<th>FEATURES AND FUNCTIONS</th>
<th>WARRANTY</th>
</tr>
</thead>
</table>

Programmable Communicating 7-day Thermostat

- Aq1000TP2: 4 Zone settings can be manually or automatically set from a single Aquatrol panel
  - Number of Zone settings
  - Indoor temperature displayed
  - Date and time displayed
  - Surface Keys
  - Easy-to-read backlit display
  - 7-day programmable

Non-Programmable Communicating Thermostat

- Aq1000TN2: 2 Zone settings

* Available Only with Communication Thermostats
* Only with AQ Thermostats
* Only with TP2 Thermostats with flexible customization features
### Replacement Modules and Enclosures

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
<th>WARRANTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aq10x38</td>
<td>Transformer Module Add-a-Temp</td>
<td>*</td>
</tr>
<tr>
<td>Aq15400B</td>
<td>Replacement for Aq254 Add-a-Temp</td>
<td>*</td>
</tr>
<tr>
<td>Aq15200B</td>
<td>Replacement for Aq252 Reset &amp; Mixing Injection</td>
<td>*</td>
</tr>
<tr>
<td>Aq15100B</td>
<td>Replacement for Aq251 Reset</td>
<td>*</td>
</tr>
<tr>
<td>Aq15A00B</td>
<td>Replacement for Aq25A Relay “Plus”</td>
<td>*</td>
</tr>
<tr>
<td>Aq15000B</td>
<td>Replacement for Aq250 Relay</td>
<td>*</td>
</tr>
<tr>
<td>Aq15540B</td>
<td>Replacement for Pumps/2-Wire Zone Valves</td>
<td>*</td>
</tr>
<tr>
<td>Aq15740B</td>
<td>Replacement for 4-Wire Zone Valves</td>
<td>*</td>
</tr>
</tbody>
</table>

### Enclosures

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DESCRIPTION</th>
<th>WARRANTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aq11D10</td>
<td>Small (10 DIN width) Use as an enclosure for additional transformers, or to hide wiring. Includes integral DIN mounting rail.</td>
<td>*</td>
</tr>
<tr>
<td>Aq11D15</td>
<td>Medium (15 DIN width)</td>
<td></td>
</tr>
<tr>
<td>Aq11D20</td>
<td>Large (20 DIN width)</td>
<td></td>
</tr>
</tbody>
</table>

### Sensors

<table>
<thead>
<tr>
<th>MODEL</th>
<th>FEATURES AND FUNCTIONS</th>
<th>WARRANTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aq12C10</td>
<td>Outdoor Sensor</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Includes mounting bracket</td>
<td></td>
</tr>
<tr>
<td>Aq12C11</td>
<td>Supply/Return Sensor</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Includes mounting bracket</td>
<td></td>
</tr>
<tr>
<td>Aq12C20</td>
<td>Slab/Floor Sensor</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Includes mounting bracket</td>
<td></td>
</tr>
</tbody>
</table>

### Intuitive selection tool

Intuitive selection tool lets you answer just a few simple questions and gives you the exact Bill of Materials and wiring configuration for the job (Form #63-9699).

- Available on CD ROM, or online at customer.honeywell.com/aquatrol
Make it a Honeywell System

In addition to adding the Aquatrol to run your entire hydronic system, be sure to use Honeywell hydronic accessories. Honeywell makes world class air eliminators, zone valves, and more so your system will run more quietly and effectively over time.

1. Aquatrol Hydronic Control
2. Aquatrol Communicating Thermostat or any Honeywell Conventional Thermostat
3. Supervent Air Eliminator: PV or PVU Series
4. Expansion Tanks: TK or TX Series
5. Zone Valves: V8043 1000 or 5000 Series
6. Manifold Zone Valves: RM and RAM Series
7. Mixing Valves: AM-1 Series, AM 1070, AMX DirectConnect, UMV Series UnderSink and MX Series High Capacity
8. Backflow Preventers: BP700, BP701, BP900, BP901
10. Boiler Trim Kits: Include Expansion tank and various hydronic components in one easy-to-use kit

Learn More
For complete details on increasing profits with Honeywell Hydronic Heating Solutions, contact your Honeywell distributor or visit customer.honeywell.com.

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