



Wisconsin Administrative Code

High and Operating Temperature Limit Switch

CODE REQUIREMENT SPS 341, Admin.Code for Boiler and Pressure Vessels

SPS 341.29(2) (b) 2.a and b

2. a. Each automatically-fired hot water boiler shall have at least one temperature actuated control to shut off the fuel supply when the boiler reaches a preset operating temperature.
2. b In addition the boiler shall have a (backup) high limit switch which will prevent the water temperature from exceeding the boiler maximum allowable temperature. Each limit control shall be clearly separated and have its own sensing element and operating switch.

OPERATION

High limit controller: Shuts off burner when water temperature exceeds high limit setting (**usually 200 °F**). Burner restarts when temperature drops below the High Limit set temperature. **Unless you purchase an aquastat with a manual reset button.*

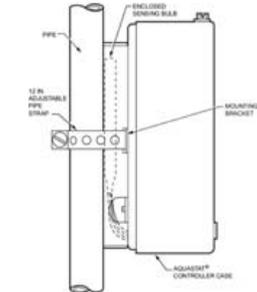


(A dangerous situation for you and your boiler is to let the internal water temperature exceed 212 °F)

HOW TO COMPLY

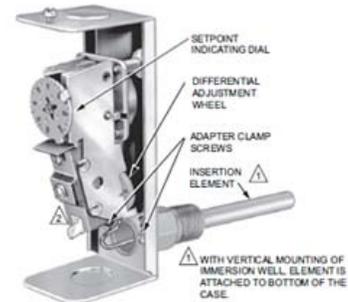
AQUASTATS

Strap-On Type



Mounting L4006H or L60006C

Immersion Type



Internal view of L6006A

Note: Supplemental Supervisory Controls such as (Tekmar energy saving controls) are not acceptable as operating or high limit temperature controls.

MOST ECONOMICAL SOLUTION

In many cases the direct action non-immersion **Strap-On Aquastat** is the most economical way to comply with this safety requirement to protect your boiler and human life. This can be installed without the need to drain the boiler and allows easy compliance during the heating season.

Listed Below are Some Acceptable Controls

CONTINUED

1. Honeywell L4006H - Aquastat Controller, High-Limit Strap-On Mounting
2. Johnson Controls SPDT Strap-On Aquastat A19DAC1C
3. White Rodgers 1127-2 Strap-On Aquastat Control

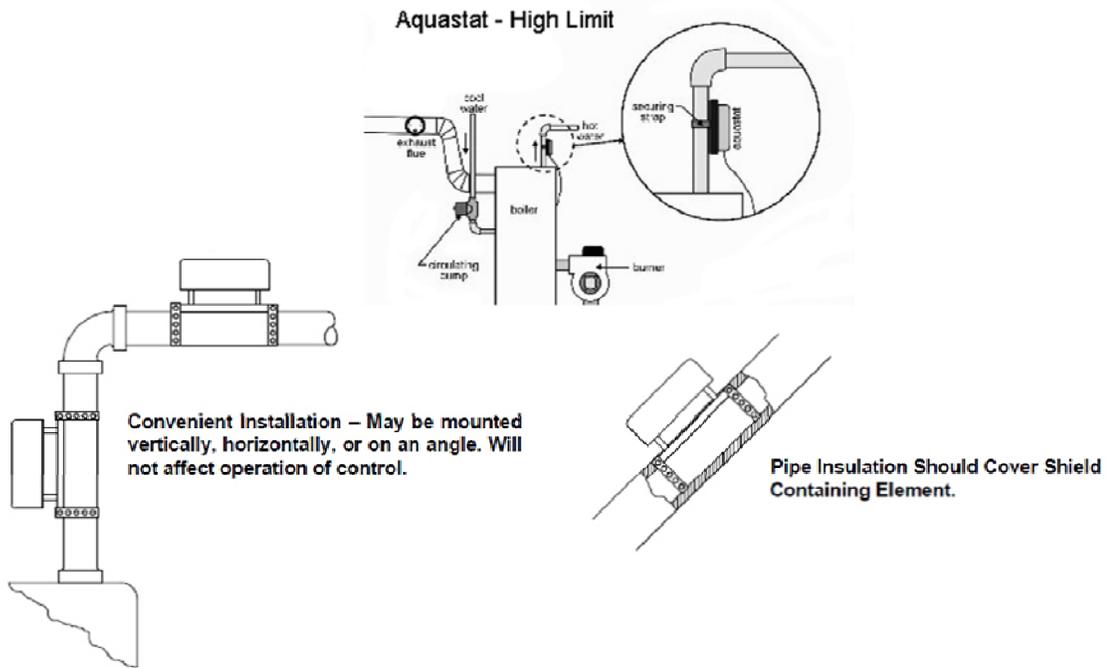
NOTE: The above controls are a sample of the most reasonably priced High limit controls available. There are many more styles and Manufactures to choose from.



INSTALLATION OF STRAP ON AQUASTAT

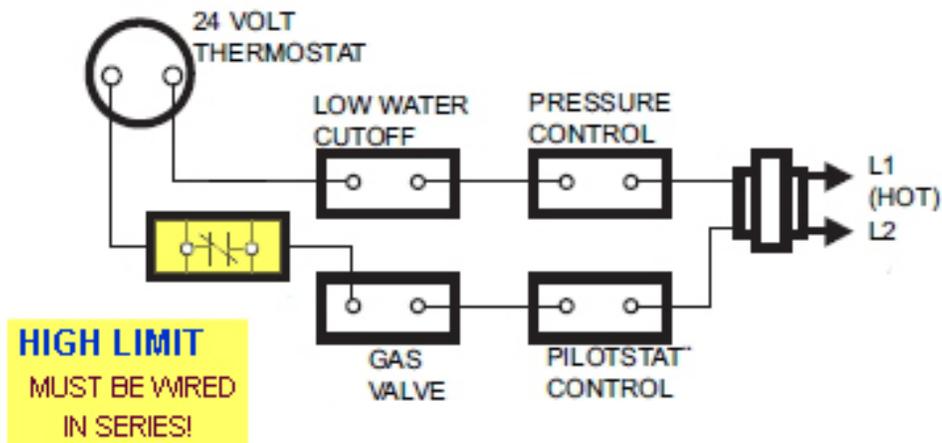
Strap-On Aquastat ... can be mounted in any position. When mounting these aquastats, make absolutely certain that the **pipe surface is clean** and free of rust and corrosion. All rough and high spots should be filed smooth. Nothing should be allowed to interfere with the operation of the temperature responsive base of the control. Any direct action strap-on or immersed aquastat can be used to control boiler water temperature in gas- and oil-fired hydronic heating systems. On a domestic hot water heating system, surface mounted controls may be attached to either a horizontal or a vertical supply riser approximately 18 inches above the boiler

.....



WIRING EXAMPLE

PLEASE FOLLOW MANUFACTURES DIRECTIONS WHEN INSTALLING.



Electrical Shock Hazard can cause serious injury, death or equipment damage. Disconnect power supply before connecting wiring to avoid electrical shock or equipment damage.

All wiring must comply with local codes and ordinances regarding wire size, insulation, enclosure, etc.