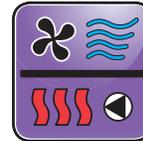


tekmar® Submittal

Boiler Reset Module 420



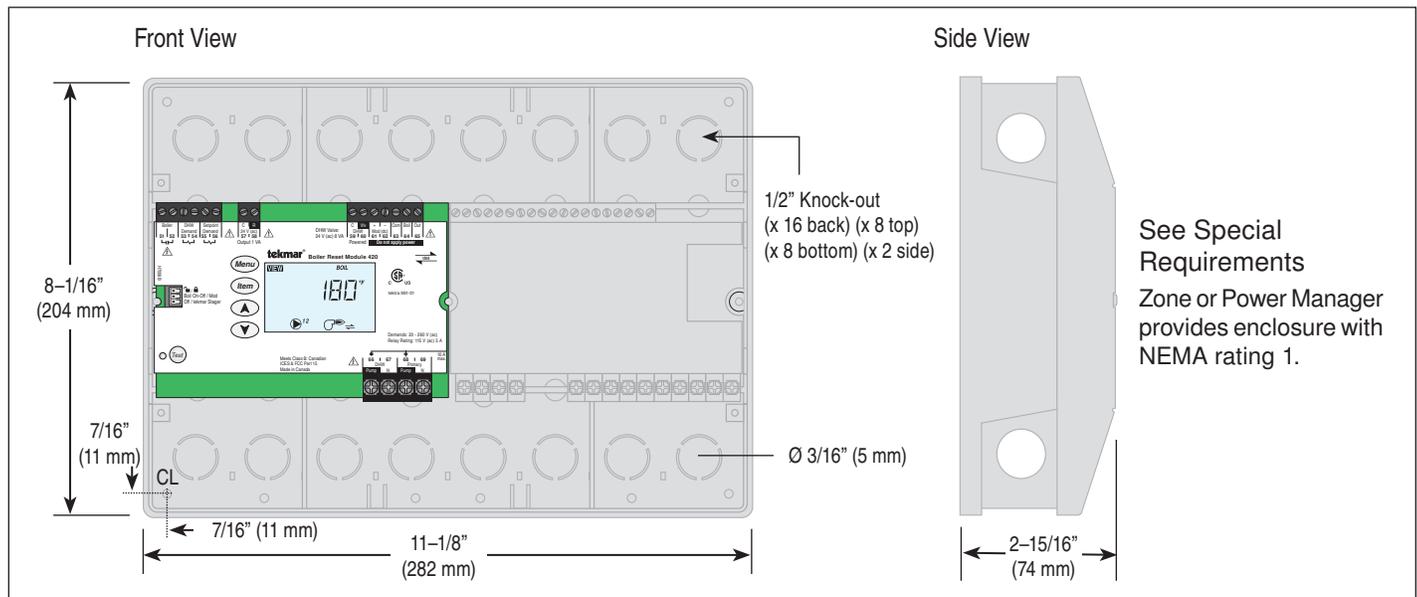
C 420

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HVAC Systems Replaces: New

Job _____ Designer _____ Contact _____

The Boiler Reset Module 420 is designed to operate all of the mechanical equipment in a hydronic heating system, except for zones, coordinating their operation through network communication. It can be used in applications ranging from a single zone of baseboard with an on/off boiler, to multiple radiant floor zones with a modulating/condensing boiler. This control regulates one space heating water temperature through Outdoor Reset and Indoor Temperature Feedback. It is capable of controlling a single on/off or modulating boiler, Domestic Hot Water, setpoint loads, and can connect up to 24 zones in total.



Specifications

Boiler Reset Module 420 One tN4, Boiler, DHW & Setpoint	
Literature	D420, W420, J420, D070
Control	Microprocessor control. This is not a safety (limit) control
Packaged weight	1.6 lb. (730 g)
Dimensions	3-5/8" H x 5-3/8" W x 9/16" D (92 x 137 x 14 mm)
Approvals	CSA C US, meets Class B: ICES & FCC Part 15
Ambient conditions	Indoor use only, 32 to 122°F (0 to 50°C), RH ≤80% to 88°F (31°C), down to 50% above 104°F (40°C), Altitude <6560 ft. (2000 m), Installation Category II, Pollution Degree 2
Power supply	Provided by interconnected Zone Manager
DHW pump relay	115 V (ac) 5 A, 1/6 hp
Primary pump relay	115 V (ac) 5 A, 1/6 hp
Combined load	10 A max (for DHW and Primary Pump)
DHW zone valve	24 V (ac) 8 VA max
Modulation output	0-10 V (dc) minimum 2500 Ω
Boiler relay	115 V (ac) 5 A, 1/6 hp
Demands	20 to 260 V (ac) / 0.1 VA @ 24 V
Sensors	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) β=3892
-Included	Outdoor Sensor 070 and Universal Sensor 082
Warranty	Limited 3 Year (See D420 for full warranty)

Energy Saving Features

- Outdoor Temperature Reset
- Indoor Temperature Feedback up to 24 zones
- Warm Weather Shut Down
- Zone Synchronization
- DHW Post Purge

Additional Features

- System control for up to 24 zones
- Single on/off, or modulating boiler control
- DHW control
- DHW Priority
- Automatic Boiler Differential
- Equipment Exercising
- Boiler Protection
- Powered pump outputs
- System Setback (with optional Timer)
- One touch overrides (with optional User Switch)

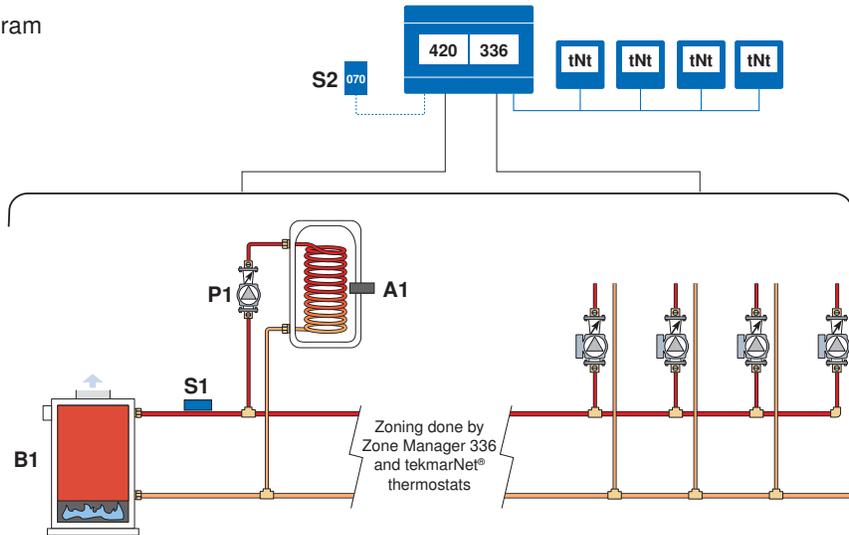
SPECIAL REQUIREMENTS

Enclosure not included! Must be installed with a tekmarNet® Zone Manager or Power Manager for mounting and power.

Sample Application Drawing

Below is a sample application drawing for this product. This application may include other tekmar products that are required for installation. More sample applications can be found at www.tekmarcontrols.com.

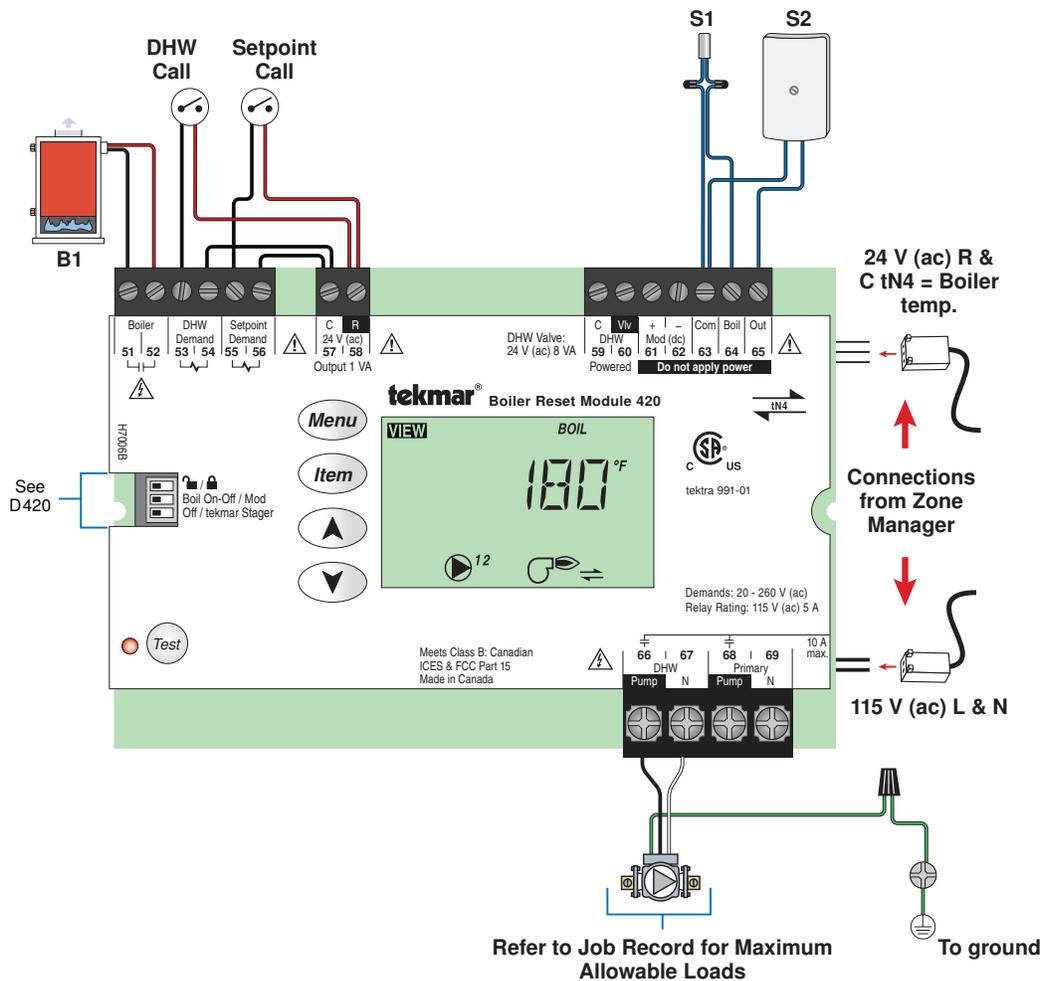
Sample Mechanical diagram



Sample Electrical diagram

Legend

- B1 = Boiler 1
- P1 = DHW Pump
- S1 = Boiler Supply Sensor
- S2 = Outdoor Sensor
- A1 = DHW Aquastat



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