Product Instructions



Pump and Boiler Relay

The Viega LLC Pump and Boiler Relay provides power to circulators and can enable a boiler as well. Control may be provided from a Viega Zone Control or Thermostat.

Features

- External Indicator Lights
- Universal Replaceability
- Snap-in PC Board
- Simple Wiring
- Sealed Relays
- Fuse Protected Outputs
- 100% Factory Tested
- Contractor Friendly PC Board Layout
- Universal Zone Control and Thermostat Compatibility
- UL Approved

Specifications

Transformer Voltage: 120 VAC input Input Voltage: 120/60/1 VAC Maximum Combined Load: 12 Amps

Relay Connections: 1/3 hp (6FLA, 36 LRA)@ 120 vac Thermostat Connection: 24 VAC Class 2 Output

Installation

Wiring connections must be made in accordance with all applicable electrical codes. Use copper wire only. Failure to follow this instruction can result in personal injury or death and/ or property damage. 12-18 gauge wire recommended for all 120 VAC connections with 9 in. lbs. max torque, 14-22 gauge wire for thermostat connections with 9 in. lbs. max torque. 120VAC wiring must have a minimum temperature rating of 75°C.

Jumper placement:

The jumper is factory installed between terminals H and 3 to switch power on terminals 4 n/o and 4 n/c.

Operation

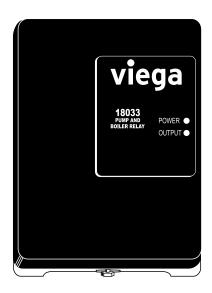
There are four common ways to connect the Pump and Boiler Relav:

Wiring Diagram #1 Viega Digital Thermostat (stock code 18050):

From the thermostat connect the R, W and C terminals to the corresponding R, W and C terminals on the zone control. When the thermostat calls for heat, the relay in the zone control is energized and power is supplied to the circulator. (R=R, W=W, C=C)

Wiring Diagram #2 Viega analog style thermostat (stock code 18029, 18031):

From the thermostat connect the L terminal to the R terminal on the zone control, connect the A to the W terminal on the zone control, and connect the N to the C terminal on the zone control.



When the thermostat calls for heat, the relay in the zone control is energized and power is supplied to the circulator. (L=R, \blacktriangle =W, N=C)

Wiring Diagram #3 Zone Control:

Connect pump relay contacts of Zone Control to "T T" terminals on the relay. When the Zone Control calls for heat, the relay is energized and power is provided to the circulator (and/or dry contact to the boiler).

Wiring Diagram #4 With 2-Wire Thermostat:

Connect a 2-wire thermostat to the "T T" terminals on the relay. When the thermostat calls for heat, the relay is energized and power is provided to the circulator (and/or dry contact to the boiler).

Dimensions

Width 4-7/8" Height 5-5/8" Depth 2-3/8"

Troubleshooting

The external indicator lights show full functionality of the Pump and Boiler Relay. The green light should always be on, indicating that power is connected. If the green light is out check the power connections at terminals N and H.

The red light shows a call for heat, indicating that power is being supplied to the circulator (and/or a boiler enable signal is provided).

If the Zone Control or thermostat is calling for heat but the red light is out, check the thermostat wiring. If the red light is on but the circulator is not running, check the circulator connection to the relay.

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Product Instructions



Terminal Identification:

TT Zone Control or thermostat connection

24v COM Common side of 24V transformer, for 3-wire thermostats

N Neutral wire of power input (120 V)
H Hot wire of power input (120 V)
Common terminal for 4 n/o and 4 n/c

4 n/o Normally open terminal 4 n/c Normally closed terminal 6 n/o Normally open terminal 6 n/c Normally closed terminal

5 Common terminal for 6 n/o and 6 n/c

Viega Digital Thermostat (stock code 18050)

Connecting the Pump and Boiler Relay to a Viega Thermostat

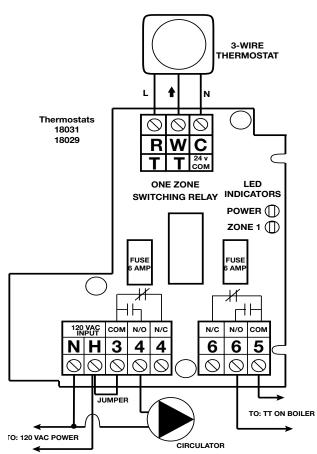
Wiring Diagram #1

3-WIRE THERMOSTAT С Thermostats 18050 ONE ZONE SWITCHING RELAY INDICATORS POWER (ZONE 1 (1) AME AMI сом N/O 3 4 6 $N \mid H$ 6 5 JUMPER TO: TT ON BOILER TO: 120 VAC POWER CIRCUI ATOR

Viega 3 wire Thermostat (stock code 18031, 18029)

Connecting the Pump and Boiler Relay to a Viega Thermostat

Wiring Diagram #2



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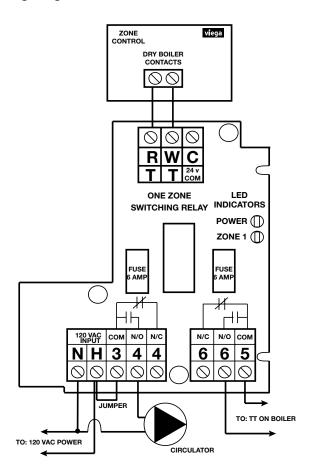
Product Instructions



Zone Control

Connecting the Pump and Boiler Relay to a Viega Zone Control

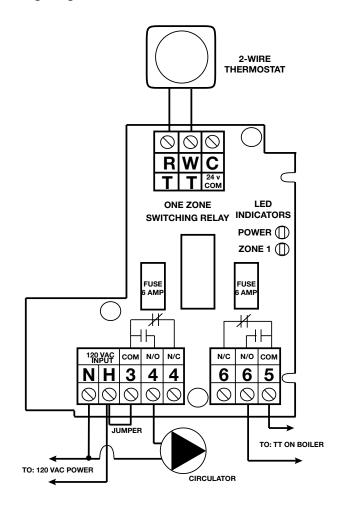
Wiring Diagram #3



2 Wire Thermostat

Connecting the Pump and Boiler Relay to a 2-wire thermostat

Wiring Diagram #4



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