



Technical Bulletin 131 - Use of Circ-Logic™ for Building Recirculation

Purpose:

To recommend electrical connections to Rinnai Tankless Water Heaters equipped with Circ-Logic™, in order to control external building recirculation pumps with electrical requirements greater than 120VAC.

Instructions:

- Use listed Medium - Amp, Double Pole Single Throw - Normally Open (DPST-NO) Relay

The following guidelines are to be followed in addition to all applicable national, state and/or local wiring codes.



This unit is supplied with 120 volts. Disconnect incoming power to the unit prior to performing any repairs or installation to internal components or accessories.



Do not touch any other areas on the PC board besides the “SW” switches while power is supplied to the appliance. Parts of the PC board are supplied with 120 volts.

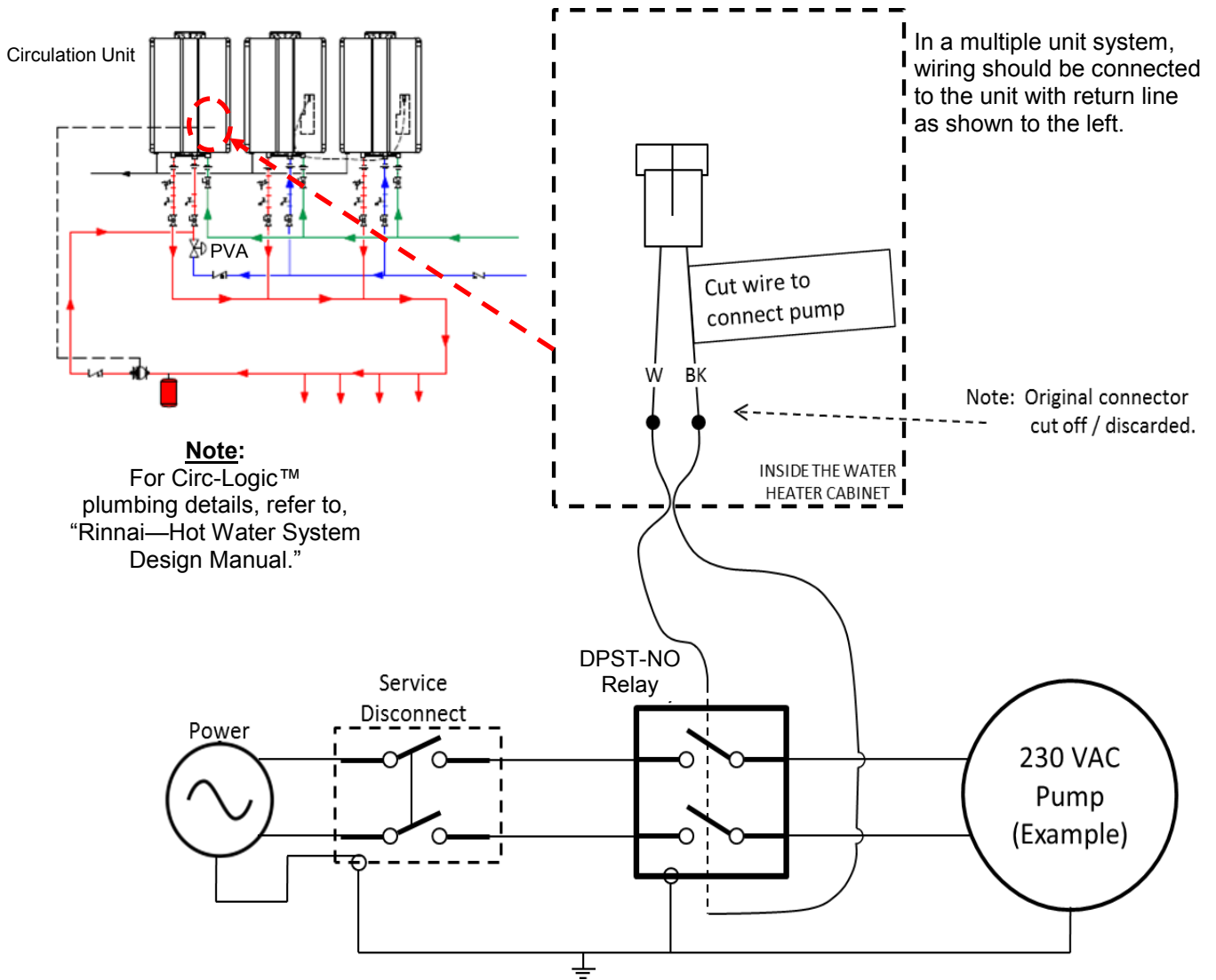


If the instructions contained in this technical bulletin are not followed exactly, a fire, explosion, or electric shock may result causing property damage, personal injury, or death.

Installation - *The following installation **MUST** be completed by a qualified technician/electrician.*

1. Disconnect power to the tankless water heater by unplugging the power cord or by turning off the electricity at code required means of disconnect.
2. Install the 240V pump in accordance with installation instructions provided by the pump manufacturer.
3. Mount field supplied DPST-NO relay outside the water heater cabinet per the relay manufacturer instructions.
4. Locate the Circ-Logic™ harness (black and white wires with connector labeled “Cut wire to connect to pump”). Cut off the connector and discard.
5. Splice the black and white wires from the tankless water heater, (extending as needed). Route the wiring through the access hole to the relay location. The splicing should be located inside the water heater cabinet. Terminate the wiring to the control side of the relay. **All relay manufacturer recommendations as well as any and all electrical codes must be adhered to.**
6. Connect 240V from the building’s power supply to the relay. Then connect from the other side of the relay to the pump.

7. Adjust the dip switch settings in the water heater. See Settings table below.



Follow relay manufacturer guidelines for all electrical and grounding connections.

This is not an engineering schematic; it is intended only as a guide and not a replacement for professional engineering schematics. This schematic is not intended to describe a complete system. It is up to the contractor / installer to determine the necessary components and configuration of the particular system to be installed. The schematic does not imply compliance with local building code requirements. It is the responsibility of the engineer or contractor to ensure that the installation is in accordance with all local building codes. Confer with local building officials as necessary.

Settings for SW (bank of white switches)		
Mode	Switch 4	Switch 8
Economy Mode	ON	OFF
Comfort Mode	ON	ON

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