



Model 29A00 Thermostat Isolation Module

DESCRIPTION

The HAI Model 29A00 Thermostat Isolation Module (TIM) is designed to isolate an HAI Model RC-80 series (Rc-8x) thermostat from the heating and cooling system it is controlling. This module is used when there is an incompatibility between the RC-8x thermostat and the controlled HVAC system. Since the RC-8x is a “power stealing” thermostat, there must be sufficient current available in the unused circuit (i.e. the heating circuit if the thermostat is calling for cooling) to drive the thermostat electronics. The RC-8x draws very little current, about 10 mA on average. However, it requires an uninterrupted power supply. Even a momentary interruption in power to the RC-8x will cause it to reset (showing all segments of the display and resetting the power on delay timer). Most heating and cooling systems are designed with power stealing thermostats in mind, and are fully compatible with the RC-8x without the TIM. In the case of incompatibility, the TIM assures a continuous and adequate supply of current to the RC-8x, while eliminating any current draw from the heating and cooling system. The TIM also makes the RC-8x compatible with systems using voltages other than 24 VAC, such as millivolt systems or DC controlled systems.

This module can also be used when the heating and cooling system has separate transformers. RH is for heating and RC is for cooling. These terminals are isolated from each other on this module.

The TIM should be used when the following conditions apply:

1. The RC-8x “resets” (as evidenced by all segments on the display illuminating for several seconds) when calling for heat or cool.
2. The RC-8x is used to control millivolt heating systems or other systems, which do not use 24 volts AC for the thermostat circuit.
3. The RC-8x is used to control heating and cooling systems with separate transformers.

The TIM is mounted on or near the heating and cooling equipment. Only 4 conductors are used to the RC-8x: R, G, W and Y. The C (common) terminal on the RC-8x is not used. The LED indicators on the TIM will indicate which circuits are energized: FAN (G terminal), HEAT (W terminal), and COOL (Y terminal).

INSTALLATION

1. Locate an area on the panel of the HVAC system large enough to mount the Model 29A00. The area should be free of obstructions both on the front and back of the panel.
2. Place the Model 29A00 against the panel and mark the center of the four mounting holes with a pencil.
3. Drill a 3/16” diameter hole in each location marked.
4. Insert the large end of the 3/8” long nylon standoff into each of the holes drilled as shown in Figure 1.

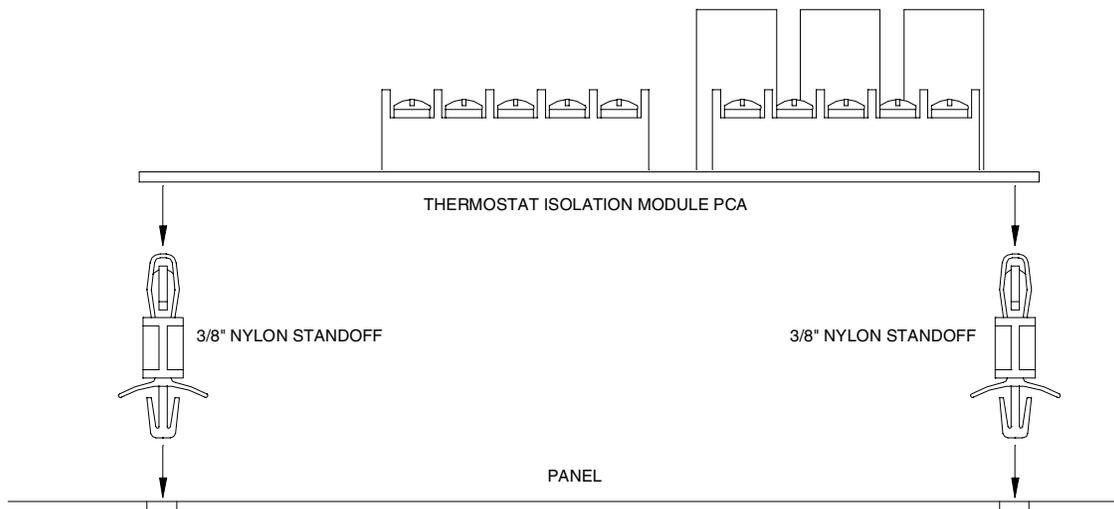


Figure 1 - Mounting the Model 29A00

5. Attach the Model 29A00 onto the ends of the four standoffs. They should snap into the holes on the Model 29A00 PCA.
6. Wire the Model 29A00 according to Figure 2 or Figure 3 depending on the type of HVAC System.

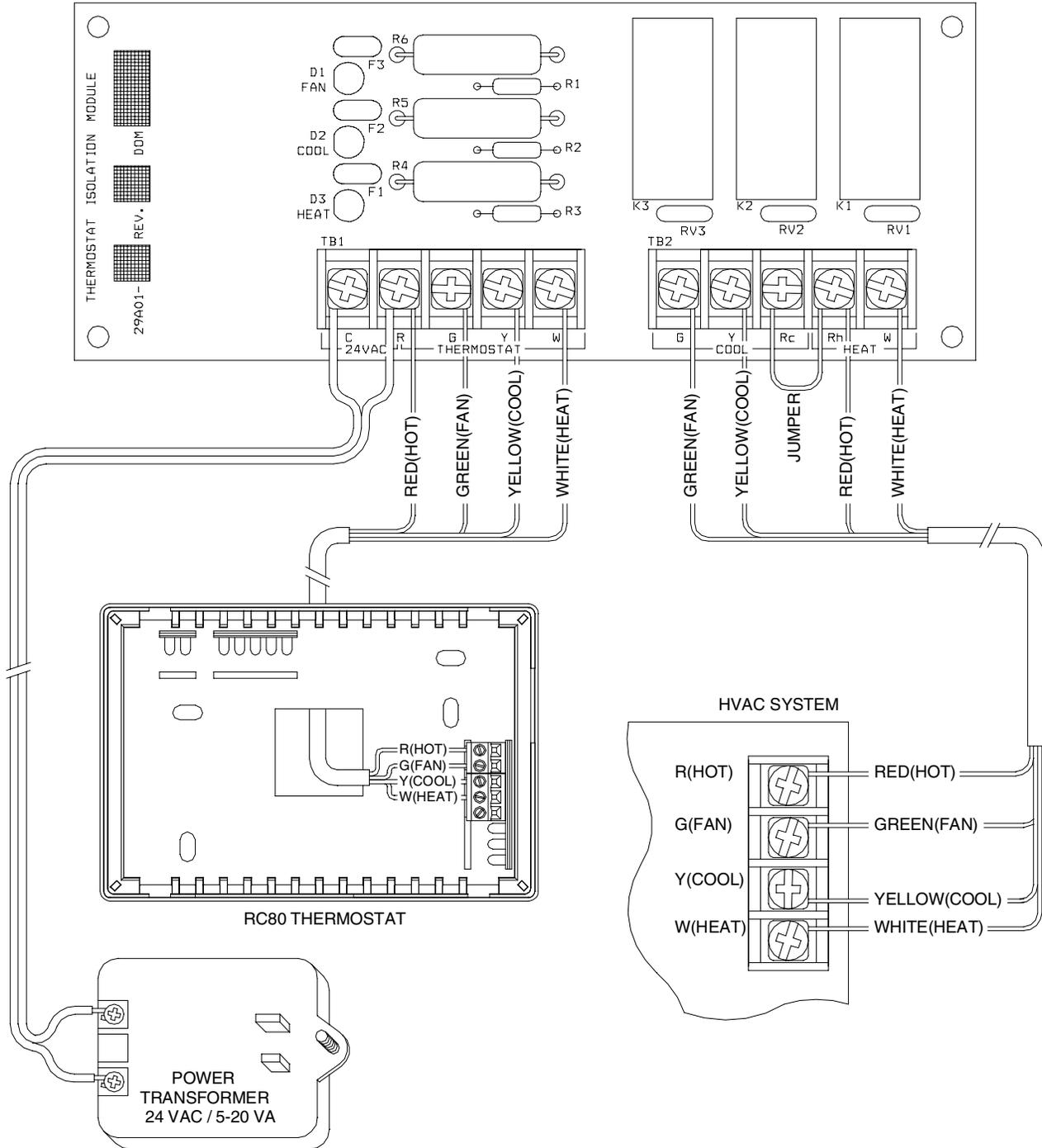


Figure 2 - Connections to Isolate Thermostat from HVAC System

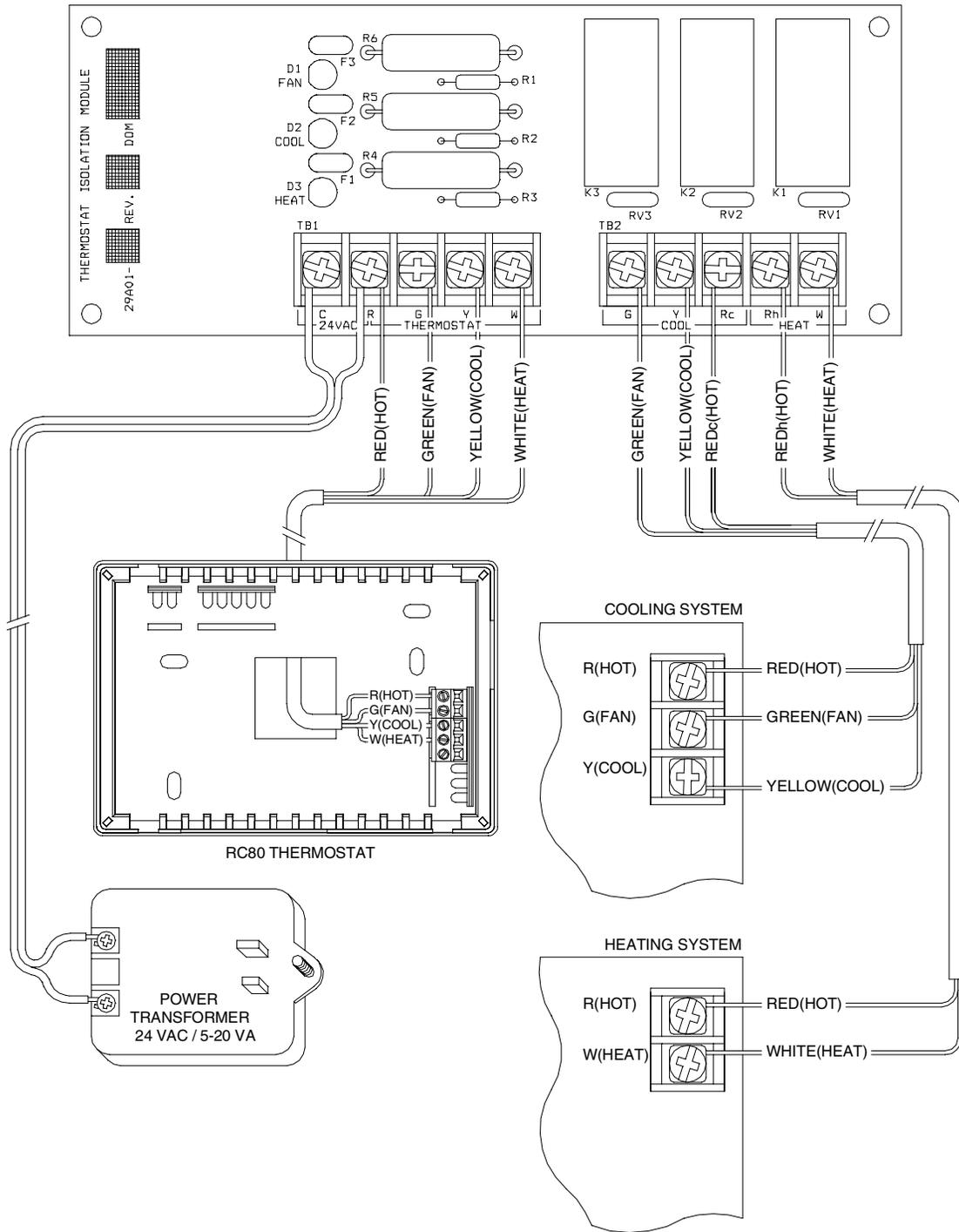


Figure 3 - Connections to Heating and Cooling Systems with Separate Transformers