

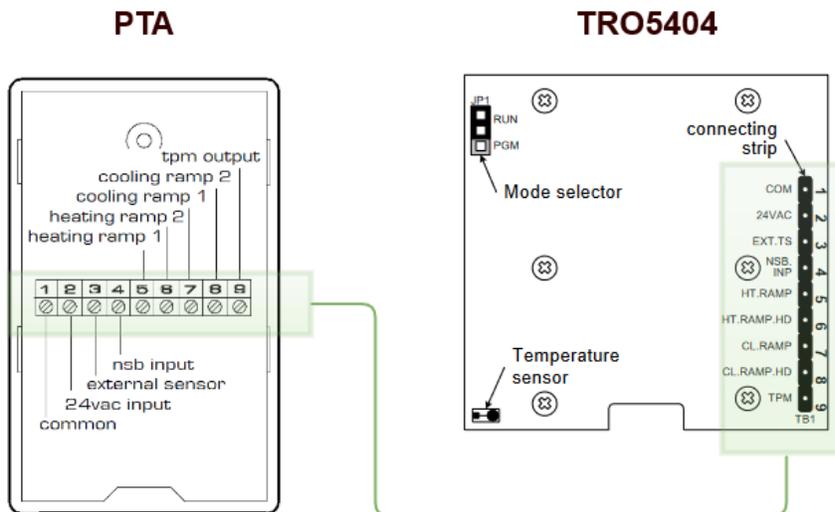


Time to upgrade your old PTA/PTC

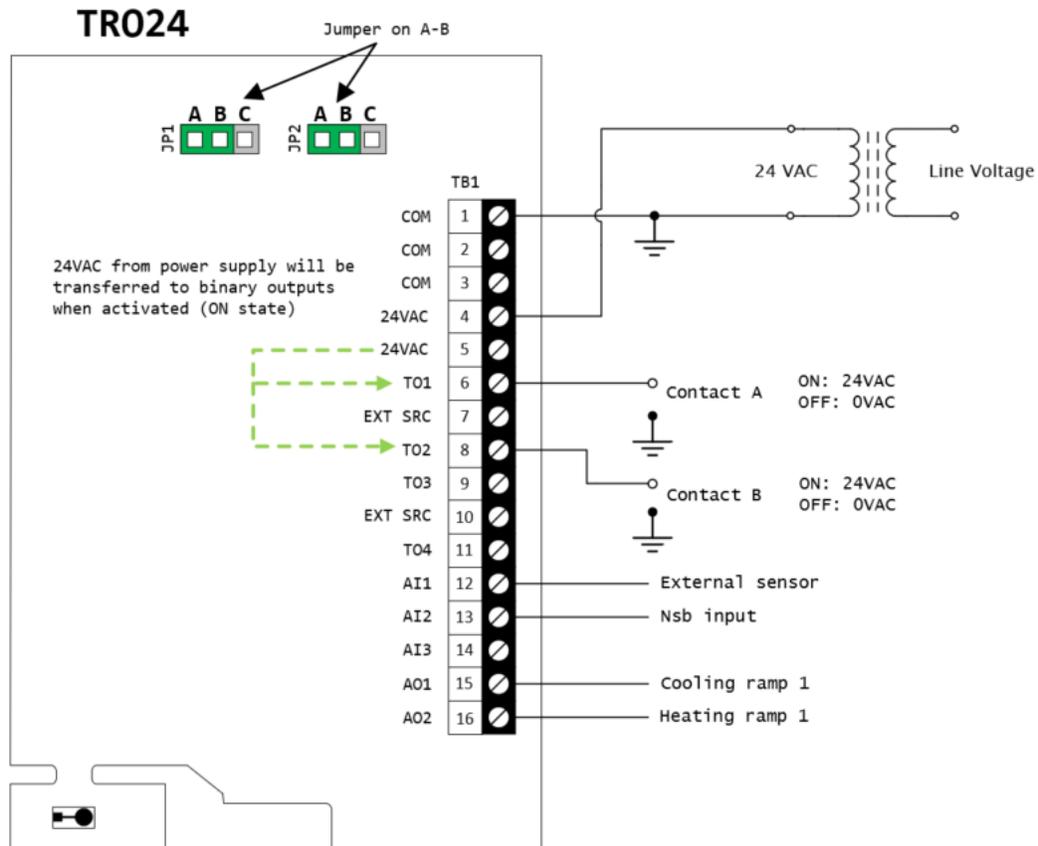
By the year 2000, Neptronic offered a solid controller in two versions, PTA and PTC. As HVAC technology evolved, improvement was necessary and new models with digital technology were designed to increase flexibility and make the configuration process easier.

The replacement procedure is straightforward depending on each installation site's requirements. Some installation cases are detailed below.

1. PTA. Temperature controller with modulating heating and cooling outputs. It is replaced by the TR05404. All terminal descriptions are identical from one to nine. At this point, the only observation is that two different types of external sensors are accepted by the TR05404: 3.3K Ω and 10K Ω . Select the proper sensor in the configuration menu.

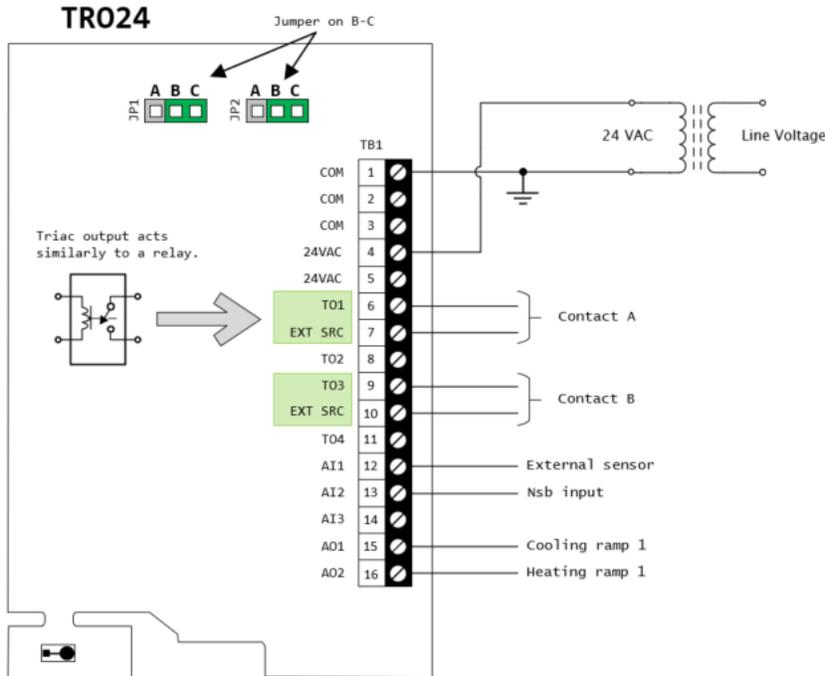


2. PTC. This product adds two dry contacts (C/A and C/B) to generate on/off control signals for heating or cooling. The afore mentioned TR05404 doesn't have this capability.

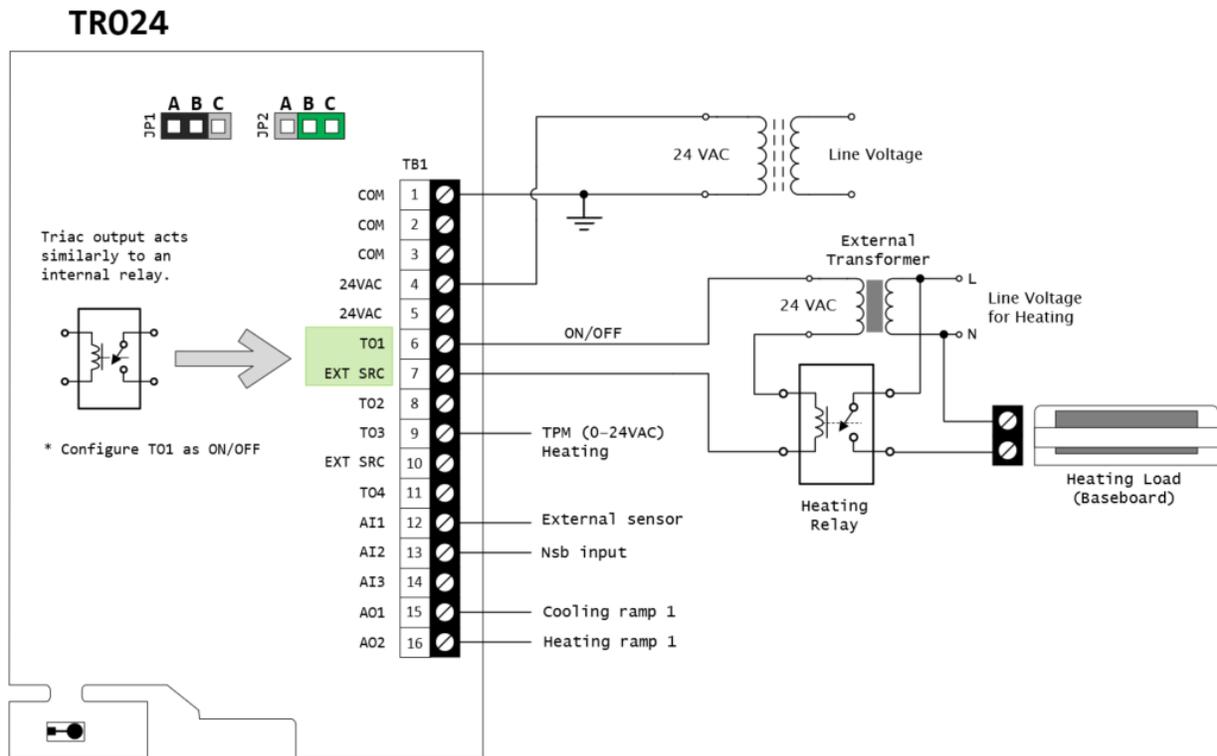


If no contacts are needed (only analog signals), you can apply the same wiring as the PTA. But if you need them, use the TRO24 series, which has 4 TRIAC outputs known as binary outputs. They will generate the on/off signal. One such product is the TRO24-EXT1. It has 4 binary outputs that will receive 24VAC when activated. Voltages on these outputs are with respect to ground (terminals #1, #2 or #3).

Every binary output can be independently configured to follow the cooling or heating demand. To replicate the dry contact behavior, however, binary outputs should not be linked to an internal power supply, but rather, to an external one. Jumpers JP1 and JP2 let you select to which power supply the Triacs are linked, internal or external. The complete description is in the Installation Manual. In the reference picture below, move the jumper positions to B-C and bring a wire from the external source to the 'Ext Src' terminals as shown below:



Analog input 1 and 2 are deactivated by default. Configure them as 'external sensor' and/or NSB (night setback) if needed. The TRO24 series is only compatible with 10K Ω type 3 temperature sensors. Review current consumption of the external circuit connected to contacts A or B since the TRIAC output has a current limit of 250mA. Use the diagram below as reference for your application.





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About Neptronic

Neptronics' equipment is the first choice for air conditioning manufacturers and designers due to our experience in the manufacturing of humidification equipment, our practical redesigns in maintenance, precision in operation and low energy consumption, all thanks to our new patented designs.

Our dedicated team of over 300 experts designs and manufactures all our products in Montreal, Canada, where our 10,126m² (109,000 sq. Ft.) facility stands proudly. Our exclusive distribution network provides comprehensive solutions to our customers around the world.