



02/11/2022

## **TECHNICAL BULLETIN**

## TOPIC: SUBSTITUTING GOOGLE/NEST WIFI LEARNING THERMOSTAT\* CONTROL FOR USE WITH STEP HEAT EPI-LX-R SERIES POWER SUPPLIES

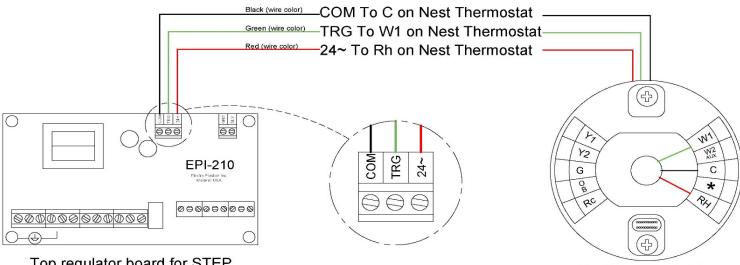
## **OVERVIEW:**

For clients seeking Wi-Fi functionality to control a STEP HEAT radiant heat system, GOOGLE NEST Wi-Fi Learning Thermostats\* may be substituted, yet with the following application and operating caveats:

- 1. Only use for **Primary Heating Applications** given GOOGLE NEST does not currently have floor sensor mode capability.
- 2. Solid copper wire conductors (3) must be used for wiring between the STEP HEAT transformer signal board and GOOGLE NEST Thermostat.
- 3. The STEP HEAT system will not run as efficiently using GOOGLE NEST versus a STEP Touch Thermostat due to a proprietary logic algorithm which monitors and pulses the heating elements for tighter temperature control and improved efficiency.
- 4. In the event wither device fails for some reason, both manufacturers reserve the right to void the standard warranty. To date we know of no reported failures.
- 5. As all radiant systems directly heat its surrounding mass which takes longer time when compared to conventional systems. It is not recommended activating GOOGLE NEST'S DAILY/WEEKLY PROGRAMMING and self-learning features as it can negatively impact both comfort expectations and efficiency performance.
- 6. During the initial GOOGLE NEST APP on-line start up procedure, GOOGLE NEST currently identifies the wiring scheme as something other than an **electric radiant heat** system. This is a misnomer only and does not impact functionality.

**NOTE\*-** GOOGLE NEST's Non-Learning Thermostat (less expensive) will NOT integrate with STEP system.

## WIRING DIAGRAM



Top regulator board for STEP transformers 500W-1500W

Nest Thermostat Base