Nest & Other Power “Sharing” Thermostat Wiring Options

Power sharing thermostats like the Nest may cause false signals and erratic manager behavior. Below are (4) wiring methods that allow proper operation.

<table>
<thead>
<tr>
<th>Wiring Options</th>
<th>Considerations</th>
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<tbody>
<tr>
<td>1) Installed with Air Conditioning.</td>
<td>Nest uses power from the air conditioning equipment. No wiring modifications are required.</td>
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<tr>
<td>3) Provide a transformer to power the Nest thermostat along with isolation relay.</td>
<td>See drawing SYS-08-031. Relays and transformers are commonly found on HVAC service vehicles.</td>
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<tr>
<td>4) Provide a common power wire.</td>
<td>If the existing thermostat cable has a spare wire, connect A2 to C terminal to provide the Nest Thermostat with power.</td>
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</tbody>
</table>

Zone 1 connection shown. Connect red wire to A1. Connect white wire to T1 for zone 1, or to T2, T3, or T4 for zones 2, 3, or 4 respectively. Connect resistor to A2 and T1 (if zone 1); similarly connect the resistor to A2 and T2, T3, or T4 for zones 2, 3, or 4 respectively.

Notes: Wiring applies to Digital Energy Manager (shown) and Classic Energy Manager with red labels used on System 2000 and 90+ Resolute™. No wiring modifications are required for the Accel CS™ Condensing Energy Manager, which has a blue label.
NEST THERMOSTAT USING 3 WIRES
AND USING BOILER TRANSFORMER FOR POWER

NEST THERMOSTAT USING 2 WIRES
USING 15 WATT 200 OHM **RESISTOR
(NEST USING 2 WIRES. MUST USE RESISTOR AS SHOWN OR ISOLATED FROM MANAGER WITH A RELAY)

**Resistor between A2 and Tx

*Tx CAN BE T1, T2, T3 OR T4
**RESISTOR: 200 OHMS, 15 WATTS
MOUSER PART#: 280-CR15-200-RC MANUFACTURER: XICON
MOUSER PART#: 588-TUW15J200E MANUFACTURER: OHMITE

51 MOLASSES HILL RD, LEBANON, NJ 08833

ENERGY KINETICS
NEST THERMOSTAT USING AN ISOLATION RELAY AND A SEPARATE TRANSFORMER

TX* N/O CONTACT LEADS
- ORANGE
- YELLOW
- WHITE/BLUE
- WHITE/YELLOW

24VAC COIL LEADS

24V (50VA) Transformer
EK# 10-0152

Line Voltage

EK# 10-0412-RIB (RIB# 2421C) 24V/120VAC RELAY SPDT

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE INCH [MM]
TOLERANCE ON:
XX ±
XXX ±
ANGLES ±
FRACTIONS ±

SIGNATURES
DRAWN JS
CHECKED
ENGRC
APPRVD

DATE
12/1/14

ENERGY KINETICS
51 MOLASSES HILL RD, LEBANON, NJ 08833

WIRING THE NEST THERMOSTAT TO THE DIGITAL MANAGER

USED ON
SEE A DWG NO. REV
NEXT ASSY SCALE SHEET

SYS-08-031 1

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