This month, we have a customer who wants their furnace checked before the heating season starts. The house was vacant for an extended period of time before they purchased it during the summer, at which time the split system was started, checked for proper air flow and refrigeration system performance. The unit was operating normally.

When you arrive to perform an inspection and startup for the heating system, you begin by setting the thermostat to call for heat, and you find that nothing happens. Referring to the diagram shown in Figure 1, you decide to make three quick preliminary voltage checks to begin your troubleshooting process:

1. Transformer primary = 120 V ac.
2. Transformer secondary = 24 V ac.
3. Interlock switch = 0 V ac with switch in closed position.

As your next step, considering the equipment sequence of operation, you proceed to connector PL4 and perform a voltage check at 1 and 3 with the thermostat calling for heat and the interlock switch closed, and your meter shows 120 V ac. After disconnecting the power supply and isolating the IDM, an ohmmeter test at WHT/M and BRN/AUX shows infinity.

Your troubleshooting question is:

- What is the next step you need to take to get this equipment operating?

The answer to this month’s problem will be published in the December 2015 issue of RSES Journal.

If you have the answer to this question, submit your name, home address, a day and evening phone number, the month in which the question you are answering was published and your answer to: Jordan Brandes, Associate Editor, RSES Journal, 1911 Rohlwing Road, Suite A, Rolling Meadows, IL 60008-1397; email troubleshooting@rses.org; or fax to 847-297-5038. Make sure your answer is submitted by Oct. 31, 2015.
All correct answers will be entered into two drawings. The monthly drawing will be for a copy of Johnson’s video training program, “A Heat Pump That’s Not Delivering Any Air,” and the quarterly drawing will be for a Fieldpiece LT-17A digital meter.

And the winner is...

The answer to the August 2015 Troubleshooting problem, “A Heat Pump That Is Blowing Warm Air in August,” is: our voltage tests showed that the defrost control is not operating and once we confirm that the defrost sensor is OK, the board needs to be replaced.

The winner of the August monthly drawing (from among 14 correct responses) is Edward L. Barnick of Hinckley, MN. The winner of the July, August and September quarterly drawing (from among 51 correct responses) is David Berch, Savannah, GA. Winners should call 520-625-6847 or email Johnson to facilitate shipment of their prizes. Drawings must be claimed by Dec. 31, 2015.

Jim Johnson, Director of Training, Technical Training Associates, develops technician training workshops, DVDs, audio books and e-books, many of which are available at the RSES online store.

For information on Jim’s DVD training program, “Schematic Symbol Fundamentals and Translating What They Mean,” visit www.techtrainassoc.com, write PO Box 2259, Green Valley, AZ 85622-2259 or email jim@techtrainassoc.com.