Click HERE to go back to Solar PV Engineering and Installation correction page

QUESTION #20

Original question:
You are working on a jobsite and the wrong inverter was sent, because the old inverter was thought to be less safe and less efficient by the business owner. What must you do to make sure that the new ungrounded inverter is installed correctly when adapting the plan from the grounded inverter?

A. Switch to a larger grounding electrode conductor.
B. Not use 90°C rated USE-2 for your source circuits on the roof outside of conduit.
C. Tap the transformer on the ungrounded inverter.
D. Switch the white wire from the negative to the positive.

QUESTION 20 REVISED:
You are replacing an inverter that was installed in 2008 and it was called a grounded inverter at that time. There is white electrical tape marking the negative USE-2 wire. What is the best solution when replacing this inverter with a typical modern “non-isolated” functionally grounded inverter?

A. Switch to larger grounding electrode conductor
B. Rewire the dc disconnect to open up positive and negative
C. Not use 90°C rated USE-2 for your source circuits on the roof outside of conduit.
D. Switch the white wire from positive to negative

Correct answer B

In 2008, most inverters were known as grounded inverters, which I now call fuse grounded inverters. You would have trouble finding one today. These inverters were installed using earlier versions of the NEC. In versions of the 2014 NEC and earlier, we would have had to have a white marked or colored grounded conductor, which was usually the negative.

The best way to replace this inverter, would be by taking the white tape off of the negative and opening the disconnect on the negative and the positive. When this type of inverter was installed, we did not open the disconnect on the grounded conductor.