



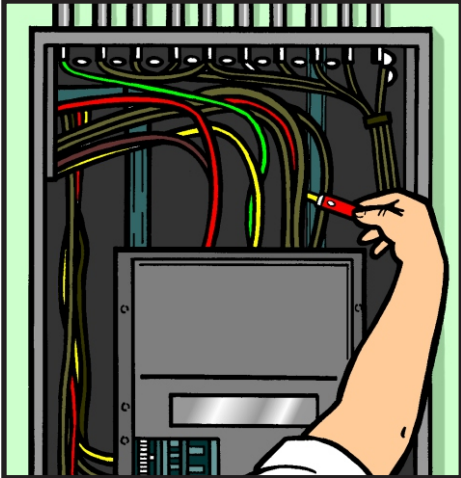
TOOLBOX

SAFETY TRAINING

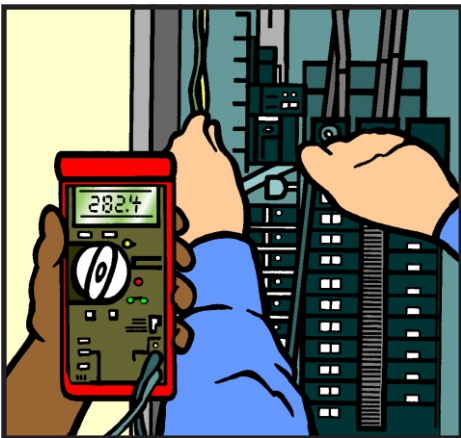
Company _____ Location _____ Date _____

Vol 31 - No 45 ELECTRICAL TESTING

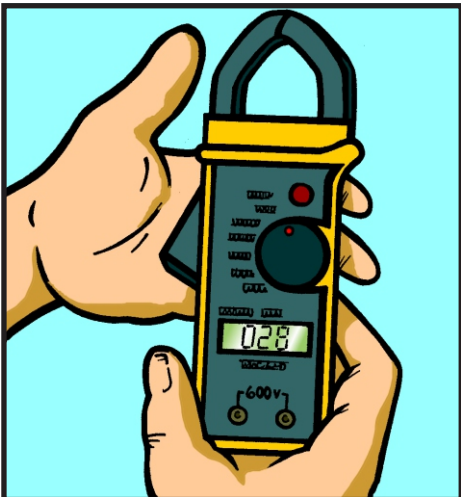
PICTURE 1 - A/C SENSOR



PICTURE 2 - VOLTAGE DETECTOR



PICTURE 3 - AMP METER



Before doing any work on a de-energized electrical circuit that has been locked out and tagged out, the electrician must test the circuit to make sure it is dead. Therefore, a wise electrician, with experience in Lockout/Tagout, knows that having an electrical tester is essential, whether equipped in a toolbox or available through the company. Several different types of electrical testing equipment can assist the electrician when testing voltages less than 600 volts.

PICTURE ONE: The touch-less A/C sensor/voltage detector can sense whether there is a current in the wires that are about to be worked on. Many electricians turn off the circuit and assume that the wires are de-energized. However, it is possible that the wrong circuit was turned off. In addition, if the circuit has a common neutral, then there is a possibility that electrical energy may still be flowing within the neutral. Therefore, a second branch circuit will need to be de-energized in order to remove the current.

PICTURE TWO: Another electrical testing device that can detect electrical energy in the wires is a voltage detector. It has the ability to provide additional information, such as whether the electrical voltage of the circuit is 120 volts, 208 volts, or higher. Unfortunately, in order to test the voltage, the circuits must be touched. This runs an additional risk, and may require removing a part, such as the dead front on a breaker panel.

PICTURE THREE: A third form of electrical testing equipment is an Amp Meter, or A/C-D/C current probe. This device has the advantage over a voltage meter because the circuits do not have to be touched, and it gives the electrician additional information regarding how much amperage is flowing through the wires. The disadvantage is the price. While an A/C sensor costs only \$25, the Amp Meter can cost from \$150 to \$300.

It does not matter which tester is used, only that the electrical test is performed to make sure that the circuits are de-energized before the work begins.

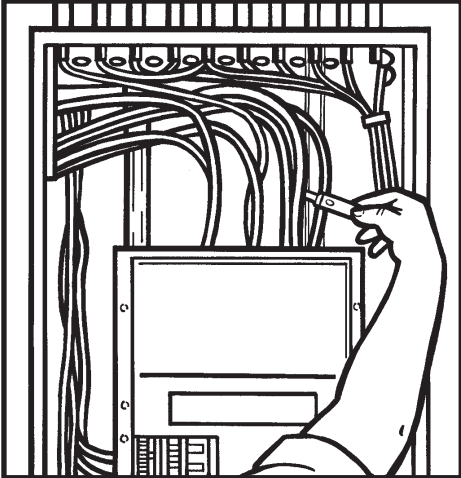


TOOLBOX SAFETY TRAINING

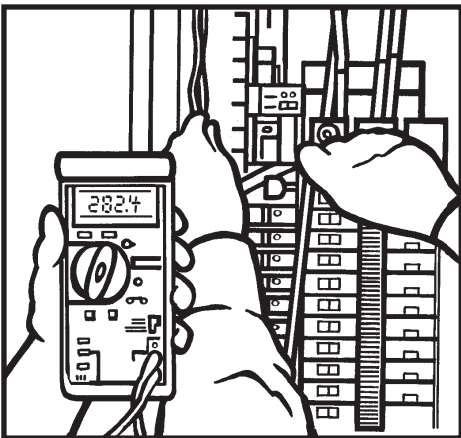
Company _____ Location _____ Date _____

Vol 31 - No 45 ELECTRICAL TESTING

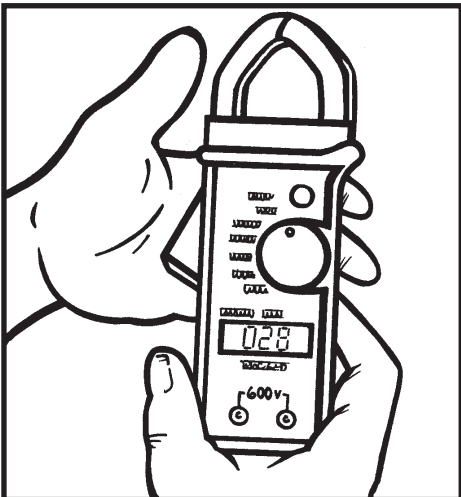
PICTURE 1 - A/C SENSOR



PICTURE 2 - VOLTAGE DETECTOR



PICTURE 3 - AMP METER



Before doing any work on a de-energized electrical circuit that has been locked out and tagged out, the electrician must test the circuit to make sure it is dead. Therefore, a wise electrician, with experience in Lockout/Tagout, knows that having an electrical tester is essential, whether equipped in a toolbox or available through the company. Several different types of electrical testing equipment can assist the electrician when testing voltages less than 600 volts.

PICTURE ONE: The touch-less A/C sensor/voltage detector can sense whether there is a current in the wires that are about to be worked on. Many electricians turn off the circuit and assume that the wires are de-energized. However, it is possible that the wrong circuit was turned off. In addition, if the circuit has a common neutral, then there is a possibility that electrical energy may still be flowing within the neutral. Therefore, a second branch circuit will need to be de-energized in order to remove the current.

PICTURE TWO: Another electrical testing device that can detect electrical energy in the wires is a voltage detector. It has the ability to provide additional information, such as whether the electrical voltage of the circuit is 120 volts, 208 volts, or higher. Unfortunately, in order to test the voltage, the circuits must be touched. This runs an additional risk, and may require removing a part, such as the dead front on a breaker panel.

PICTURE THREE: A third form of electrical testing equipment is an Amp Meter, or A/C-D/C current probe. This device has the advantage over a voltage meter because the circuits do not have to be touched, and it gives the electrician additional information regarding how much amperage is flowing through the wires. The disadvantage is the price. While an A/C sensor costs only \$25, the Amp Meter can cost from \$150 to \$300.

It does not matter which tester is used, only that the electrical test is performed to make sure that the circuits are de-energized before the work begins.