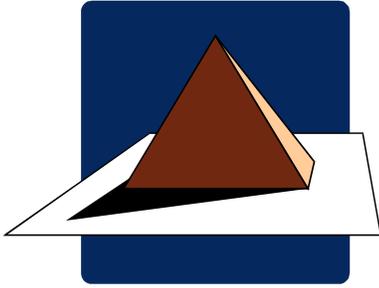


Cornerstone Electrical Consultants, Inc.



“Service Measured To The Standard”

Corporate Office 7222 East 106th Avenue
Crown Point, Indiana 46307
219.226.9981

Engineering Office 9111 Broadway, Suite FF
Merrillville, Indiana 46410
219.755.4244

Established 1999 ~ WWW.THECSTONE.COM

Updated October 2011

Newsletter ~ Electrical Test Equipment Usage

What is the most important piece of electrical test equipment? If you answered your voltage tester, then you are correct.

A properly used and maintained voltage tester can make your job easier, and more importantly, it can also save your life or the life of your co-worker. All voltage test equipment should be inspected annually and tested to a known voltage standard by your local shop or a certified test equipment repair shop.

OSHA requires all electrical workers—those who come near or in contact with energized electrical circuits—to know the following:

1. The voltage levels of all circuits within or near the piece of equipment to be serviced.
2. The basic function of the piece of electrical equipment.
3. The appropriate type of voltage tester to insure that all circuits are de-energized.

Simply turning off the power and locking out the main power source may not remove all electrical hazards. Some pieces of equipment may have alternate or externally supplied power or control circuits. Wires or busses may still be “hot” due to residual charge remaining on capacitors or long lengths of cables.

A potential issue of failing to check for the absence of voltage is the question, “Have all of the disconnects opened when the handle was operated?” A contact might have welded together. A linkage mechanism might have failed. However even if all the disconnecting points can be seen, one should never assume the circuit is fully de-energized. Use the appropriate voltage tester to verify.

All pieces of electrical equipment must be considered “hot” or energized **until** checked for voltage. Your company policies may also require grounding of the main power bus. Proper grounding minimizes circuits

Disclaimer

Cornerstone Electrical Consultants, Inc. does not and cannot know all the facts of your particular situation, and, as such, the information provided herein is not intended to create any express or implied warranty to the reader. The content of the newsletter is for informational purposes only, and the reader’s adoption and/or application of information provided herein is performed strictly at the reader’s own risk. Cornerstone Electrical Consultants, Inc.’s clients and friends should conduct an independent investigation of the facts for their particular situation and exercise their own judgment as to the appropriate solution based upon the results thereof.

building up stray charges or failure of a lockout procedure.

Before working on any piece of electrical equipment, the following steps are suggested:

1. Review all power sources and disconnects.
2. Review the manufacturers' recommended maintenance practices.
3. Use company policies to lockout the equipment. (If troubleshooting energized equipment, then additional safety precautions should be observed according to company policies.)
4. Identify the proper piece of test equipment for the various voltages to be tested.
5. Check the arc flash incident energy level and use the appropriate PPE based on

the equipment labeling or company documentation.

6. If company policy deems voltage testing as working on energized circuits requiring an Energized Electrical Work Permit, the required permits must be complete prior to testing.
7. Before using test equipment, inspect and verify its operation on a known energized power source.
8. Test all concerned electrical circuits.
9. Re-verify test equipment's operation on a known energized power source.

Remember – The manner in which you perform the task of verifying electrical conductors and circuits de-energized is critical to prevent an injury or death to yourself or to your co-worker.