Application Note for Substation Insulator Tester

The Substation Insulator Tester is shipped with two attachable assemblies:

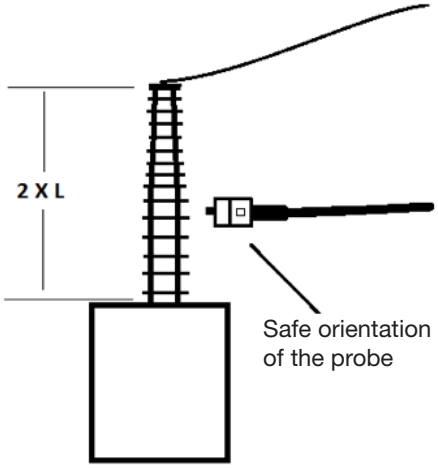
- Ski assembly
- Push Switch assembly

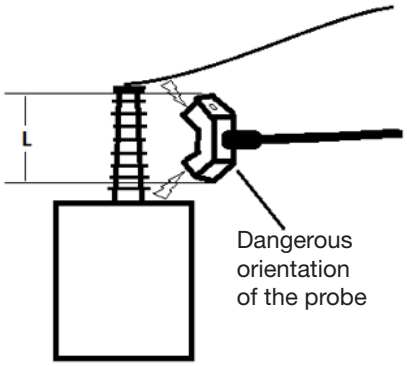
Ski Assembly

The Substation Tester with the ski assembly is to be used on equipment connected to **69 kV or greater** phase to phase power line. It is important to verify the same number of skirts on the graphic (horizontal axis) corresponding to the number of skirts on the insulator/bushing tested to ensure that there are no manipulation errors before accepting a scan.

Push Switch Assembly

The Substation Tester with the Push Switch assembly is to be used on equipment connected to power line voltages **less than 69 kV** phase to phase.





Note:
The length of the insulator must be at least 60 centimeters (2 feet) long to avoid a flashover in the event of improper orientation of the probe during use.

Using the Substation Insulator Tester to Test Porcelain Insulator Strings
If the Porcelain string has less than 12 discs, use the Push Switch assembly for best results. Apply pressure on the pin under each disc when using this method.

Graphic Interpretation of Results

Method 1: Visual comparison of the graphics from the three phases of any given equipment can be used to identify a damaged insulator. The graphic of the defective insulator will show a deviation in its curve when compared to the two other phases.

Method 2: A reference curve can be selected as a “good” insulator curve from any among similar curves for a given type of equipment; this reference can be recorded in the PC software and used for comparative purposes to determine if an insulator is good without the necessity of measuring the insulators on all three phases for the comparison.

For Porcelain insulator strings, a sharp drop on the curve is visible at the location of each defective disc.

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