

Is it Safe to Work on Live Transmission Lines? Now Positron's Danger Alerting Feature Will Tell You

Safe, Simple and Accurate

The Danger Alerting feature available on the Positron Insulator Testers is capable of determining if it is safe for transmission personnel to perform work on live AC power lines of 115 kV to 1,000 kV. In addition to use as maintenance tools, this optional safety feature will enable instant reporting if it is **safe or not** to work in the proximity of a live insulators or insulator strings.

A very simple procedure provides an on-the-spot visual and audible output signaling a Danger condition to the line crew as to whether or not the dielectric integrity of the insulator strings poses a threat to worker safety. The testers provide a clear indication when a conductive defect is present.

The polymer-based Composite insulator tester has a GO/NO-GO feature to instantly report danger on 115 kV or greater voltage lines. The Porcelain insulator tester has a feature that will provide Instant Status Reporting for danger conditions on 230 kV or greater voltage lines.

This product is based on Positron's Insulator Tester that has been sold around the world since 1990. Positron's GO/NO-GO and Instant Reporting Insulator Testers are a major advancement in determining the safety level of working in proximity to live transmission power lines.

Why is this so important?

Safety of transmission line personnel.

Upgrades and maintenance to the nation's transmission lines is a constant process. With ever-growing needs for additional electrical capacity and the need to transport that power more effectively, work crews are called upon to perform regular repairs and maintenance on existing transmission lines and commission new transmission lines for increased grid capacity. To date, there has never been a device that is capable of providing an on-the-spot safety determination.

Benefits

- Provides an on-the-spot safety determination and danger status condition
- Lightweight and easy to use with single button operation
- Optionally, field readings can be stored in a database for future reference and analysis
- No direct electrical contact therefore danger is minimized
- Allows for testing of all types and sizes of polymer-based Composite and Porcelain insulators



Composite Tester
GO/NO-GO



Porcelain Tester
Instant Reporting

Model #	Insulator Tester	Transmission Lines
378209/2 378209/4	Composite Insulator Tester Minimum: 25 skirts per insulator Maximum: 150 skirts per insulator	 Voltage range: 115 kV to 1000 kV
378130/2 378130/4	Porcelain Insulator Tester Minimum: 10 discs per string Maximum: 55 discs per string	

Application

The Positron Insulator Testers are used to evaluate the safety condition of Composite or Porcelain insulator strings. Positron's Insulator Testers measure the AC electric field surrounding insulators. By using the following procedure, transmission line personnel can safely work on energized insulator strings. The Tester is attached by transmission line personnel to a hot stick. The probe has an Electric Field (E-Field) sensor, a buzzer, a push-button and a lamp indicator (LED).

The operator simply turns on the unit, slides the tester across the string and the test is complete. Single button operation makes the Insulator Tester very easy to use. There is no direct electrical contact so danger is minimized on marginal insulators. The tester will provide immediate status of the insulator string with visual and audible type indicators. When a defective insulator is detected, the Red LED will change from a solid mode (normal) to a flashing mode (defect) and the unit will generate an audible sound. The flashing Red status LED indicates that a hazard exists.

Features

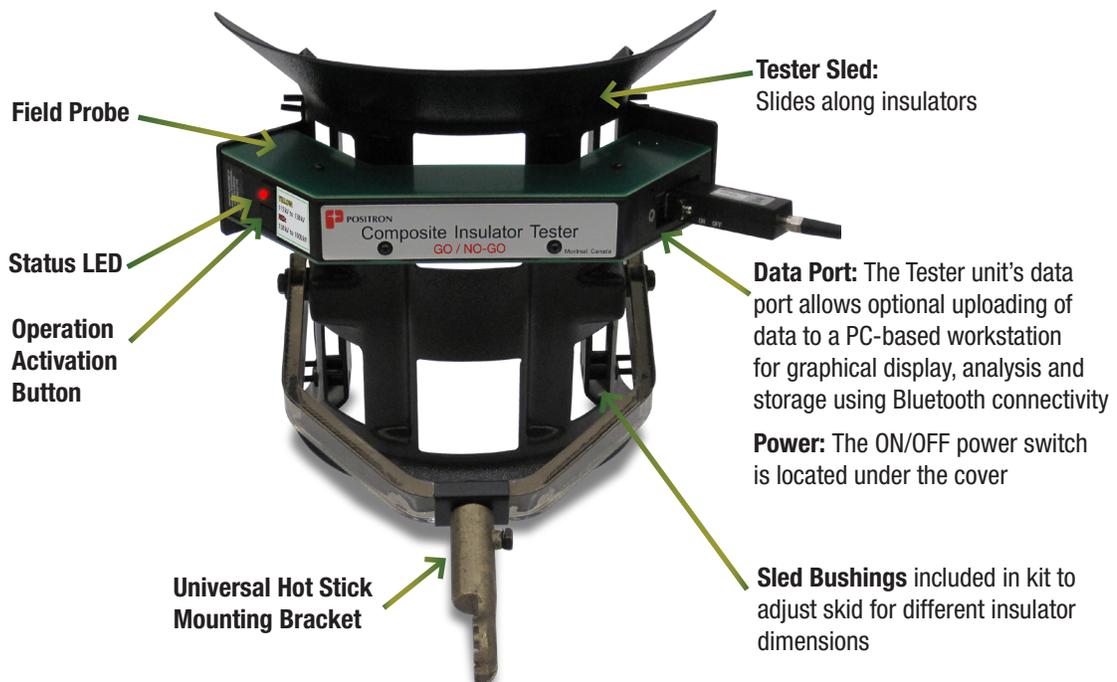
- Microprocessor based technology
- Rechargeable battery
- Comes with a universal hot stick mounting bracket compatible with industry standard hot sticks
- This tester reports major defects in energized polymer-based Composite or Porcelain insulators
- Positron's Insulator Testers are lightweight, durable and engineered to withstand field conditions
- Provided in a secure ruggedized transport case for convenient portability and field durability
- Includes adjustable skids for wide variety of insulator diameters

Detects the following types of problems

- Leaking insulators
- Punctured insulators
- Severe surface contamination
- Carbon tracking
- Captive moisture

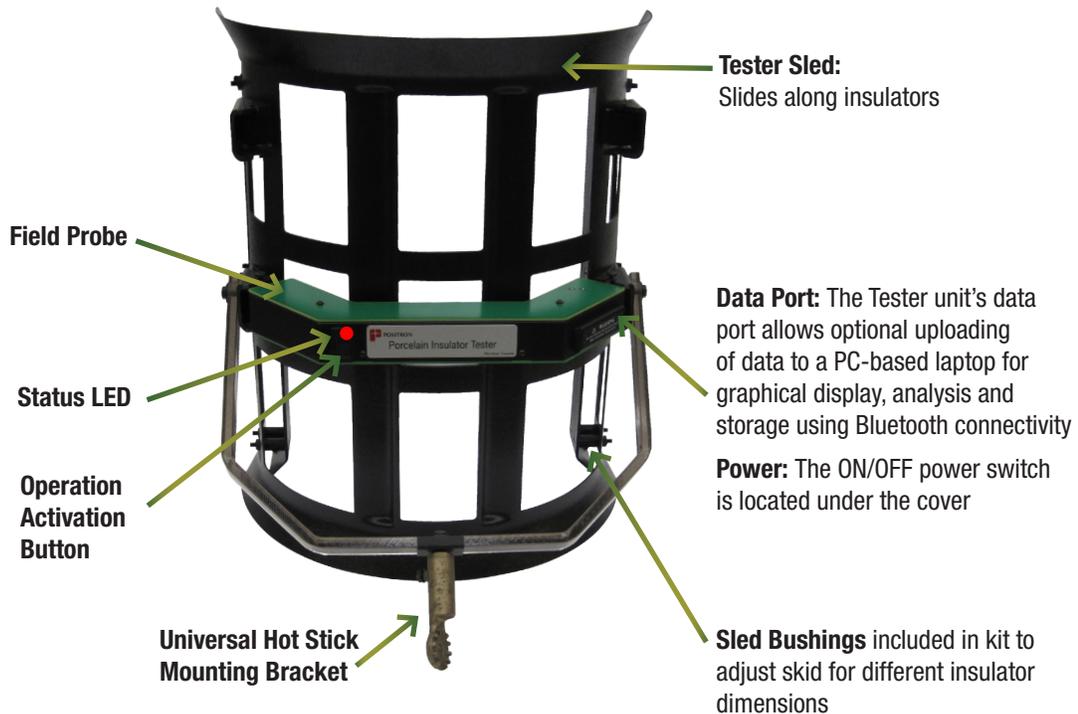
Composite Tester - GO/NO-GO

MODEL # 378209/2 (60 Hz) or 378209/4 (50 Hz)	
PARAMETER	SPECIFICATIONS
Maximum skirts per insulator string	150 skirts per insulator string
Minimum skirts per insulator string	25 skirts per insulator string
Maximum/Minimum scanning speed	Maximum: 5 skirts per second Minimum: 0.5 skirts per second
Maximum corona protection	1 million Volts
Cumulative use between charges	12 hours
Recharge duration	10 hours
Operating temperature range for the probe	-22°F to 122°F (-30°C to 50°C)
AC Voltage Range	115 kV to 1,000 kV
Statistical Analysis Mode	
Maximum memory capacity	300 strings of insulators or 15,000 readings, whichever comes first
Physical Parameter Table	
Weight	2.4 lbs (1.09 kg)
Composite Tester sled dimensions	W: 12" x H: 11" x D: 6" (30.5 cm x 28 cm x 15 cm)
Size range of Composite Insulator	4.3" to 6.7" (10.9 cm to 17 cm)



Porcelain Tester - Instant Status Reporting

MODEL # 378130/2 (60 Hz) or 378130/4 (50 Hz)	
PARAMETER	SPECIFICATIONS
Maximum discs per insulator string	55 discs per insulator string
Minimum discs per insulator string	10 discs per insulator string
Number of reported defective Porcelain discs for dangerous condition	As per Power company procedures
Maximum scanning speed	Maximum: 6 discs per second
Maximum corona protection	1 million Volts
Cumulative use between charges	12 hours
Recharge duration	10 hours
Operating temperature range for the probe	-22°F to 122°F (-30°C to 50°C)
AC Voltage Range	115 kV to 1,000 kV (Minimum of 10 discs per insulator string)
Statistical Analysis Mode	
Maximum memory capacity	300 strings of insulators or 15,000 readings, whichever comes first
Physical Parameter Table	
Weight	3.5 lbs (1.6 kg)
Porcelain Tester sled dimensions	W: 14" x H: 19" x D: 9" (36 cm x 48 cm x 23 cm)
Size range of Porcelain disc	9" to 13" (23 cm to 33 cm)



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