

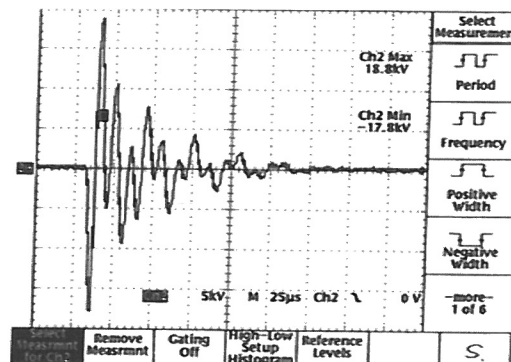
Capable Controls procedure for spark voltage measurement 9X type controls

Caution! Spark output voltage is very high, and can cause injury.

Equipment needed: Oscilloscope, (≥ 100 MHz, 1×10^9 samples/second) (storage), Oscilloscope probe rated for ≥ 30 kV, Tektronix P6015A (recommended). Test adapter terminals. Suitable 24VAC power source (transformer UL class 2).

Prepare a non-conductive table space large enough to accommodate the power source with on/off switch, the 9X type control, and scope probe (the Tektronix P6015A is large).

- Connect the power supply w/switch 24VAC side to the control (power off), terminal 5 to ground, terminal 6 to switched 24VAC.
- Connect Oscilloscope to; probe to spark output terminal 11, and scope ground to burner ground, terminal 4 using adapter terminals. The adapters make measurement connections much easier.
- Set the oscilloscope to 5kV/division with a horizontal sweep rate of 25 uSec/division. Set for negative trigger at approximately -5kV dc, normal triggering, enable scope (peak detect) if so equipped.
- Apply power (24VAC) to the 9X control and observe high voltage waveform form. (center in screen/display).
- Send image to scope connected printer, or note waveform voltage.
- Typical measured voltages are in the $\pm 17.0 - 18$ kV range.



Note: Displayed voltage is typical for 9X products.