

Direct Wire™ Probe Forming, Attachment and Positioning Instructions

A Direct Wire™ high voltage probe and two pieces of shrink tubing have been included. Below are instructions for forming, attaching, and positioning of the Direct Wire™ probe.

KNIGHTRONIX DIRECT WIRE HIGH VOLTAGE PROBE FOR OPEN FLAME GASLIGHT.

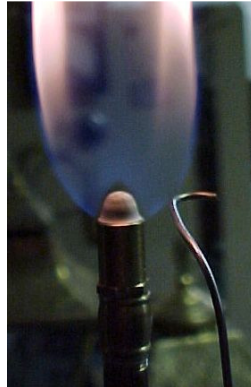
The Direct Wire™ high voltage probe uses a NiChrome wire that runs directly from the high voltage transformer to the spark gap at the side of the burner slit. A lug on the end of the probe plugs into the high voltage transformer. Shrink tubing is used to hold the probe rigidly in place (the first few layers have been applied for you).

Probe Formation:

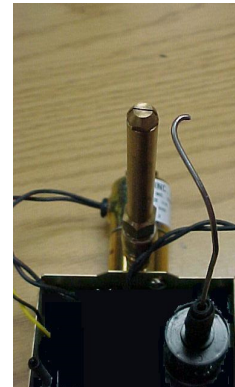
Step 1: The probe wire needs to be bent and formed to position the spark gap at the edge of the burner slit such that the probe wire is perpendicular to the slit and horizontal. Make sure the probe wire does not extend out in front of the burner. The figures below show how the wire probe is bent and positioned using three different types of open flame burner assemblies.



Burner Type 1



Burner Type 2

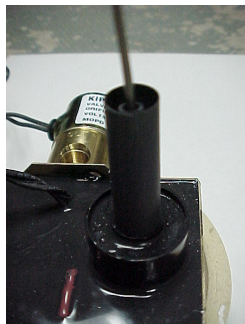


Burner Type 3

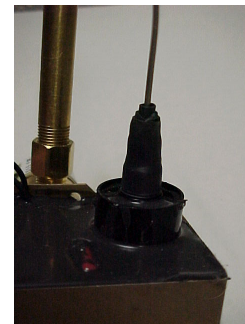
Step 2: Attaching and securing the wire to the high voltage transformer:

Push the probe wire firmly onto the high voltage transformer making sure that it is inserted fully. (There should be very little movement of the probe wire.) Apply the 2 outside layers of shrink tubing as shown below:

Apply the smaller diam. piece of shrink tubing first, followed by the larger diam. piece. (See Photos below)



First of final 2 layers



After final layer applied

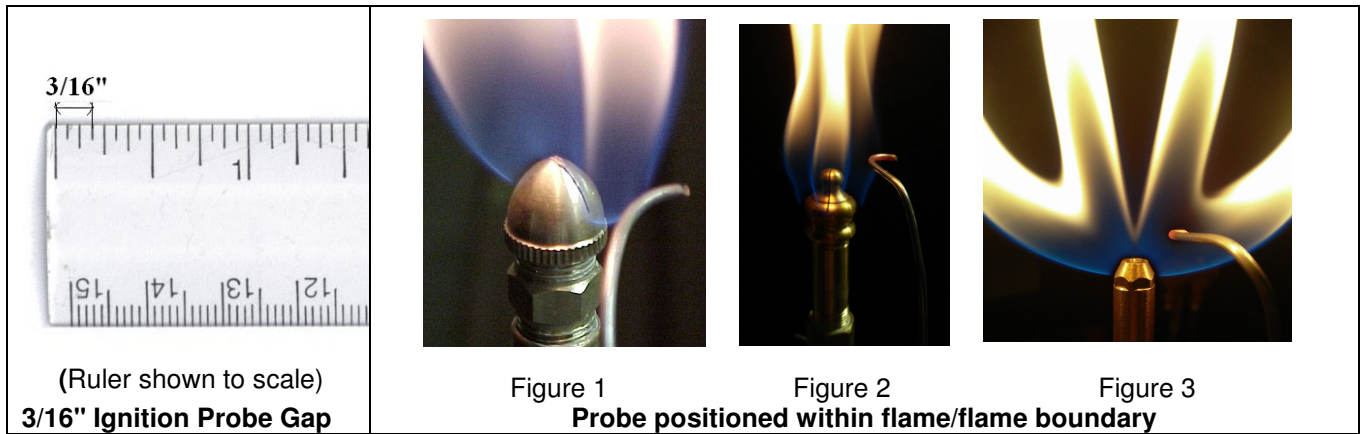
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Final Probe Alignment:

After attaching and securing the probe wire, align Direct Wire™ probe as shown in the photos below that correspond to your burner type.

Round Tip and Pyramid Knob burner tips: For burner styles shown in Figure 1 and Figure 2, the Direct Wire™ Probe should be lined up so that it is just inside the edge of the flame without distorting the flame. When aligning the Direct Wire™ probe, be sure to align so that it is perpendicular to the slit near the base of the burner tip; the probe gap should be approx. $3/16"$ – $1/4"$ for proper sparking. The best way to position the probe in the flame boundary is to light the flame; then you can see exactly where the boundary is. Relight and blow out flame several times until burner lights consistently.

For burner stems shown in Figure 3, the probe will light best when positioned inside the flame as shown. If you have a 3 Prong flame type, it is best to position the probe directly over the tip of the burner stem (not shown).



It is important that wire sparks from the side rather than the end of the wire.

Probe wire should be slightly bent around to the side so that the spark will come off the side of the wire. The igniter will not light reliably if the wire sparks from the end. A slight reverse bend in the wire at the slit will direct the spark to the brass tip at the slit area. Avoid any type of a loop at the end of the wire; "loop" probes do not work well and cause erratic operation. This ignition method works quite reliably and has the further advantage that the probe does not soot up, even when using propane.

If you have questions, please call 651 636-1008.

Examples of Incorrect Probes:



Circle Loop



Large Loop; Left of burner



Large Loop; Right of burner