

IGNITER AND TRANSFORMER CONNECTION / WIRING INSTRUCTIONS

It is recommended to install the transformer in a sealed junction box or in a junction box inside the building and run 24 VAC to the lamp.

1. Connect the wires from the igniter to the yellow wires of the supplied 24 VAC transformer.
Connecting directly to 120 VAC or shorting 24 V wires to chassis ground will damage unit and void any warranty!
2. Make sure your manual valve is in the "ON" position.
3. Connect the Black Wire from the transformer to the Black (Hot) wire of the main.
4. Connect the White Wire from the transformer to the White (Neutral) wire of the main.
5. Turn on power.

Once power is turned on, the igniter will begin to spark and ignite the burner. If, after a couple of sparks, the burner does not light, turn the power "OFF" and adjust the Wire Probe by following the instructions below. Turn power on to test and off to adjust the probe. **Do not adjust the probe while the power is on!** Continue to adjust the wire probe until the burner ignites. Once the burner ignites, blow the flame out and let it ignite on its own again. Do this a few times to make sure that the probe is in the position that it needs to be and that the flame sensor is working properly.

IF USING A DAYLIGHT SENSOR: Make sure the daylight photo sensor is in a position to recognize the day and night. Make sure there is no artificial light or the illumination from the lamp that will prevent the sensor from operating properly.

DIRECT WIRE™ PROBE ATTACHMENT, FORMING and POSITIONING INSTRUCTIONS

WARNING: When adjusting the probe, ALWAYS secure it at the igniter box so not to turn and twist at the probe connection. Damage to the ion sensor can occur if the probe is not held secure while adjusting.

Final Probe Alignment:

After attaching and securing the probe wire, align Direct Wire™ Probe so that it is just within the flame boundary and 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 easiest way to do this is to light the burner so that you can see where to line up the probe in the flame.

NOTE: If the igniter continues to try and ignite after the flame has already been lit, this is an indication that the probe is not within the flame boundary. The probe must be within the flame for the igniter to sense that the flame is lit.



(Ruler Shown to Scale)
3/16" Ignition Probe Gap



FIGURE 1
Probe Positioned within Flame/Flame Boundry



FIGURE 2

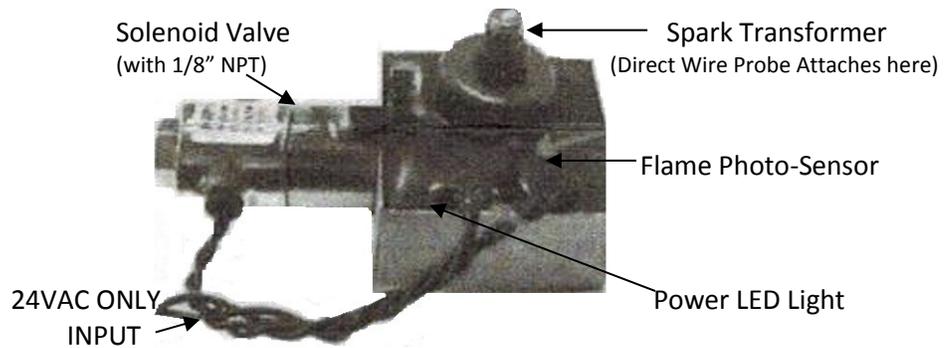
****It is important that the wire sparks from the side rather than the end****

Probe wire should be slightly bent around to the side so that the spark will come off the side wire. The igniter will not light reliably if the wire sparks from the end. Slight reverse bend in the wire at the burner 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.

****IMPORTANT****

Periodic cleaning of the burner tip, the opening in the burner tip, and the direct wire probe is necessary. Using steel wool for the cleaning of the burner tip and wire probe is best and dental floss or a razor blade is best for cleaning the opening in the burner tip.

TROUBLESHOOTING INSTRUCTIONS



**NOTE: For daylight testing – If not already covered, cover the photo-sensor with BLACK electrical tape to block light; other colors or types of tape will not block out all the light. Remove any temporary test cover when unit lights if you intend to use sensor for more reliable dual flame sensor detection.*

1. Nothing happens, no click and no spark, Green LED “OFF.”

Verify igniter power input is properly connected to 24 VAC source without any shorts to chassis or earth ground. When powering up igniter, the Green Power LED should be “ON.”

NOTE: Do NOT connect igniter to 120 VAC or hook up the transformer backwards; doing so will damage the igniter and void the warranty.

2. Sparks but does not light or lights inconsistently.

Probe adjustment; spark gap shall be 3/16 – 1/4”. Sparks shall appear across the spark probe to the pilot burner ring (mantle configurations only) or to the side of the burner tip at the slit (open flame configurations). On open flame burners, the probe should be centered and positioned directly over the burner tip. For best results with open flame burners, light burner manually so you see where to position the probe. Blow out and let unit relight several times to check for consistency in lighting.

3. Sparks and lights but does not stay lit.

Ion Sensor: Verify that the probe is properly positioned within the flame/flame boundary of the flame.

Flame Sensor: Verify that the Flame Sensor is seeing the flame. If sensor is covered for daylight testing, remove cover after unit lights.

Optional Daylight Sensor: If Daylight Sensor is seeing the flame, the unit will shut off in approx. 90 seconds. Adjust sensor so it is not seeing any light. For best results, Daylight Sensor should be placed outside the lantern. If not using Daylight Sensor, you may cover it with black heat shrink or black electrical tape.

4. No spark. Solenoid valve does not open, Green LED “ON.”

Check Green LED status:

Flashing on and off: Verify Flame sensor is covered. Two pieces of tape may be necessary.

Solid, flashes on and off after approx. 1 minute: If using, verify Daylight Sensor is covered.

5. No spark or very faint sparks. Solenoid clicks ON, valve stays open during ignition cycle and then clicks off.

Spark gap is too wide. Adjust probe (see instructions on other side).

For questions and technical support, please call 651-636-1008.