Tiki Torch Troubleshooting Guide

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Start Up Problems

Turn the Torch ON…

1. …but nothing happens.

Typical Causes:

No Power – check power at the feature. If no power check all electrical upstream of the feature INCLUDING the reset button on the low voltage power supply until the source of the power issue has been found.

Wrong Power – Check the label on the torch to confirm power required. Check power to ensure the PROPER power is being supplied. Many times we have seen the wrong power source being used.

Defective Controller – if the proper power is being supplied to the Torch and nothing happens the torch may have accidentally been connected to 120 vac at some point in time which would have damaged the controller. If this has happened there will typically be a strong "Burned Electrical" smell emanating from the Controller. If this has happened the controller has to be replaced. This is a quick and relatively inexpensive fix.

2. …Glow Plug does not glow.

Typical Cause:

Defective Igniter – the easiest way to check an igniter is using a multimeter to check the igniter's resistance. Using a multimeter measure the resistance of the igniter by measuring the resistance across the two wires of the igniter. No Resistance OR resistance greater than 8 ohms indicates a defective igniter.

Defective Controller – If the Igniter tests good then the only thing left is a Defective Controller. If you have a Defective Controller the only way to fix it is to replace it.

3. …Glow Plug glows but does not Ignite the Gas.

Typical Causes:

Power Deficiency – If the glow plug is not getting enough power it will not get hot enough to ignite the gas. Several factors could cause a power deficiency:

Thin wire installed. Recommended wire gauge for all Installs is 12 AWG (solid or stranded). If thinner wire is installed the power (amps) needed to make the igniter hot enough will not be delivered.

Insufficient Watts. The recommended watts per Tiki Torch is 35W. If you are powering more than one Tiki Torch you need to select the Power Source capable of delivering this number of watts to each of the torches being supplied power.

Too many features on a Daisy Chain – the maximum recommended number of torches on a single home run is 4 on a pair of wires no longer than 150 feet. More than 4 torches OR a wire run longer than 150 feet could result in insufficient power to ignite all 4 torches.

Wrong Power Source – if you have 24 vac fire features make sure you are powering them with a 24 vac transformer. We have had customers try to use DC power sources for 24 vac features.

No Gas – This may seem obvious however this issue is often misdiagnosed in the field as a defective torch

Forgot to Purge the New Gas Line - New gas lines have air in them. Prior to installing a torch on a new gas line it is recommended the air be purged from the line. Easiest way to do this is open the manual gas shutoff at the feature and when you smell gas you have successfully purged the gas line.

Forgot to Open the Manual Gas Shutoff Valve - Another cause for "No Gas" is forgetting to open the manual gas shutoff valve. A quick test to determine whether you have gas or not is to turn the torch on and try to ignite the gas with a handheld lighter. If it doesn't ignite you don't have gas.

Weak Igniter – though they may appear the same not all Glow Plug Igniters are the same. Slight differences in the assembly of the Igniter during manufacturing causes some Igniters to burn hotter than others. In each batch of Igniters 20% burn very hot, 70% are average and the remaining 10% burn cooler than average. During testing we are on the lookout specifically for the 20% that burn very hot and more importantly the 10% that don't. For the 10% that don't burn hot we try to reserve those for "LP" powered fire features. Propane has a lower combustion temperature than Natural Gas and the weaker igniters have no problem igniting propane. For the 20% that burn very hot we reserve these for torches that will ultimately get shipped to customers who have experienced a "Weak Igniter". Though we test every Igniter before it goes out the door every once in awhile one of the 10% "cooler than average" Igniters gets shipped for a feature using Natural Gas. When this happens the symptom is always the same – Inconsistent or No Ignition at all. In this case the only remedy is to replace the Igniter.

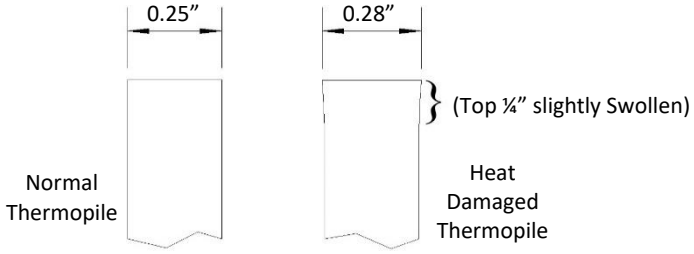
4. …Torch lights but then turns OFF within a few seconds and restarts again (repeats this sequence).

Typical Causes:

Gas Volume Insufficient – if the amount of gas being supplied to a fire feature is not enough for proper operation one of the symptoms is the feature will not stay lit.
Insufficient Gas Volume can be caused by installing gas pipe too small to deliver the proper amount of gas OR by installing a Manual Gas Shutoff (Ball valve or Key Valve) with a capacity that is too small to allow enough gas to pass through to the feature.

Defective Thermopile – it rarely happens but occasionally the Thermopile is damaged by the flame. When we see this it is usually due to the fact the torch orifice is too large for the gas pressure being supplied to the feature. When the orifice is too large the resulting flame on the Thermopile is like a "blow torch" which over time will damage it. When the Thermopile has been damaged by the flame the last ¼" of the Thermopile will appear slightly swollen as shown in the illustration below. A defective Thermopile will cause the torch to Cycle On and Off. A quick test to determine if the Thermopile is damaged is to loosen the fitting holding the Thermopile in place and then try to slide the Thermopile out. If it is swollen you will not be able to slide it out.

Top of Thermopile



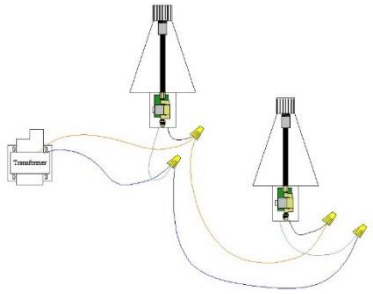
Defective Controller – If your plumbing is supplying enough gas and the Thermopile is not defective the only thing left is a Defective Controller. If you have a Defective Controller the only way to fix it is to replace it.

Performance Problems after Start Up

5. Torch Cycles (Turns On and Off) every few minutes.

Typical Causes:

Polarity between features in a daisy chain – when daisy chaining multiple features together on one pair of wire the polarity BETWEEN the features MUST be the same.



Tiki Torch Daisy Chain

Shutdown Problems

Turn the Feature OFF…

6. …but a small flame continues to burn in the Torch

Typical Cause:

Leak in the Tiki Torch Gas Valve – when debris enters the torch there is a chance some of that debris will enter the Gas Valve and contaminate the seal inside the valve. If this occurs the possibility exists the valve will not seal properly when turned off thereby allowing a small amount of gas to flow even after turned off. Often this will result in a small flame that continues to burn in the torch after the feature has been turned Off. The remedy is to replace the tiki torch gas valve.