

**CROSSTECH® 357™ SELF IGNITING  
PROFESSIONAL TORCH  
MODEL TM2000-357**



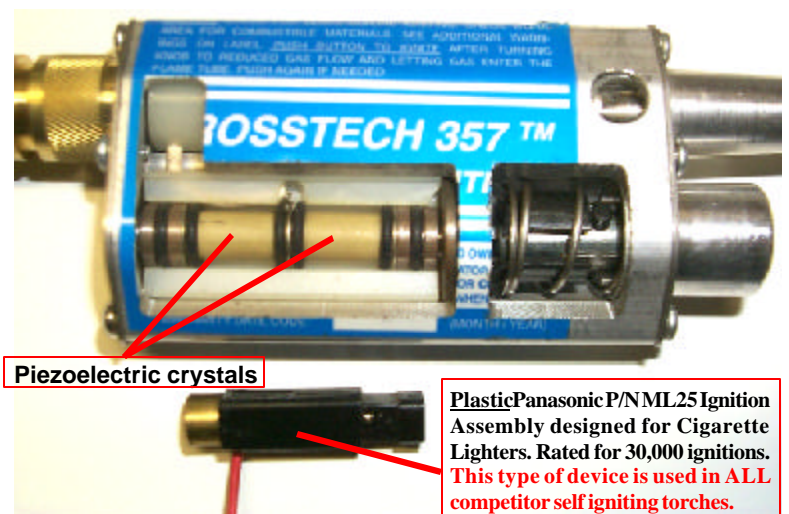
*Sold Since 1994*

**Good Reasons To Purchase CROSSTECH® 357™ SELF IGNITING TORCHES™:**

- *Hottest Self Igniting Torch in the marketplace. See competitive analysis on reverse side.*
- *Robust Design - Won't Wear Out In Normal Use*
- *Built Tough To Withstand Rough Handling From Plumbers*
- *Manufacture By General Regulator, Inc. - Company With A Strong History Of Building Reliable Products*
- *Very High Flame Speed*
- *"True" 360° Swivel For Reaching Tight Locations*
- *Same Reliable Pressure Regulator Built Since 1978*
- *All Metallic Design - No Plastic Parts To Wear Out*
- *High Impact Striking Mechanism*
- *Only Torches With Double Piezoelectric Crystals - Produces 20,000 Volts Of Igniting Power*
- *4 Torch Models: Refrigeration Model To Super Industrial "Gatling Gun Torch™"*
- *Can Upgrade Existing Torches With CROSSTECH 357™ Tips*
- *Single Turn Regulator for either MAPP® or Propane Fuels*

Having been in the torch business from 1978, we have learned a great deal about ruggedizing products for the harsh environment and handling the plumbers subject our products to. We developed a product design which had to be robust and have a very low field return rate. Our experience is that the plumber will return a torch to the distributor for any reason. The distributor, 99 out of a 100 times will give the plumber a new torch, regardless of the age of the torch. Our torches are date coded with the week and year they are shipped to a distributor, so we know approximately how old a returned torch is. There appears to be a total disregard for the warranty period.

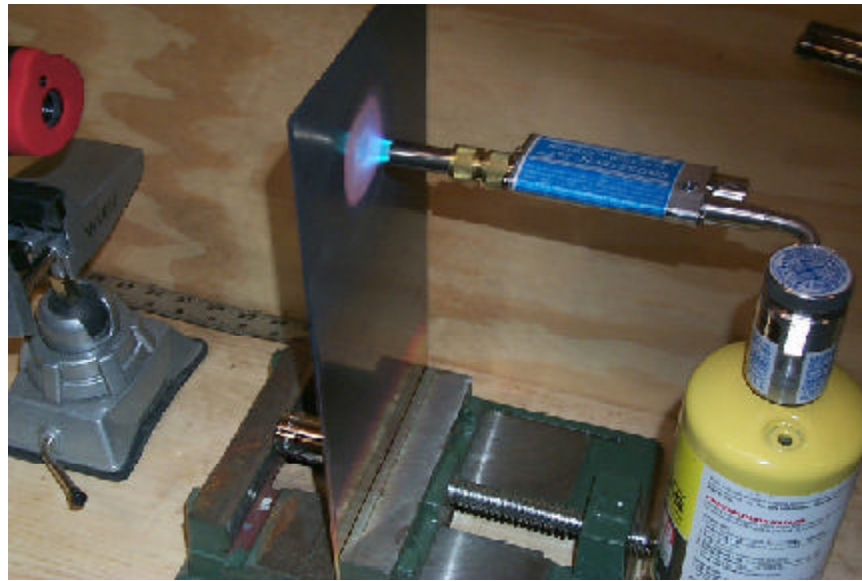
We designed and built our own ignition system which will operate for 100's of thousands of ignitions. Most of our torch tip is used for creating a very powerful spark for lighting our high velocity flames. Our piezoelectric crystals alone are larger than the ML25 assembly.



**Piezoelectric crystals**

**Plastic Panasonic P/N ML25 Ignition Assembly designed for Cigarette Lighters. Rated for 30,000 ignitions. This type of device is used in ALL competitor self igniting torches.**

# Competitive Analysis - TM2000-357 vs The Two Most Popular Self Igniting Torches



In this document we will provide measurable facts that will show that CROSSTECH® PROFESSIONAL TORCHES™ are better than the competition. We decided to quantify the performance of our CROSSTECH® PROFESSIONAL TORCHES™ and compare the results to the #1 and #2 torch brands in the industry for hand torches mounted to one pound MAPP® cylinders. These tests were done using common available materials and test equipment that anyone could purchase. We obtained 6"x12" copper plates 1/8" thick from MSC Industrial Supply. On eBay we purchased a CEM, Model 8829, Professional Higher Temperature InfraRed Thermometer, which had an operating temperature up to 1832°F, which is the temperature for phosphorous bronze brazing.

We initially tested their flame speeds and they were in the 0.5 to 1.35 inches of water range. For our testing, we used a TM2000-357 torch which had flame speeds of 1.75 inches of water. This photo shows the test setup we used. The TM2000-357 torch is heating one side of the copper plate and the CEM InfraRed Thermometer is measuring the temperature directly on the opposite side. The CEM is 6" away from the plate and has a 0.5" measurement circle on the plate. The CEM has a laser pointer so you know where you are measuring the temperature. We always search for the maximum temperature during these tests to be objective in the measurements. This is a very fair test because we are measuring the work piece temperature, and the test results will be very repeatable. We measured the temperature every 30 seconds.

