LFE Quick Reference Guide – Process Takes about 10-15 minutes to Complete.

Materials/Conditions to avoid –

- Silver or other materials that oxidize/decompose rapidly in an oxygen plasma.
- Sustained high power operation, limit processing to 20 minutes at power levels in excess of 100 watts.
- Plastic or metal containers/hardware. The sample rests within a strong EM field, localized heating may occur.

1) Verify control settings –
   a. Power Meter Scale – Forward -100
   b. Strip RF Power Control – Turn fully CCW then CW ½ turn
   c. Etch Power Control – Turn fully CCW
   d. Mode - Strip

2) Press Vacuum Release, there will be a short delay and then the chamber will vent to atmosphere in approximately 60-75 seconds.

3) Once the chamber has reached atmosphere, carefully lift up on the Door Release and tilt the door forward. DO NOT FORCE the door open, permanent damage to the door may result.

4) Load sample on to the quartz mesh shelf. If sample is too small, place the sample in a Pyrex Petri dish and then place the Petri dish on the quartz shelf.

5) Carefully close door, the chamber will automatically begin to pump down.

6) Set the Timer Scale in the **x1.** position. The cycle timer can be scaled either **x1.** or **x.1** minutes depending on the Timer Scale switch position.

7) Adjust the Strip Cycle Time thumbwheel to the desired plasma time in minutes. If set to 05 with the Timer Scale switch in the **x1.** position, the plasma will run for 5 minutes. If the Timer Scale switch is in the **x.1** position, 05 will result in a 0.5 minute plasma time.

8) Press Cycle Start to initiate the process cycle. Once the system reaches base pressure, it will pump for 30 seconds and then introduce oxygen and stabilize for an additional 30 seconds before applying RF power.

9) After RF is applied, the analog RF Power Meter will display an output power of between 7-10 watts. Note the forward and reflected power level displayed on the RF generator's front panel. The reflected power should quickly drop to less than 2 watts within a few seconds after the generator turns on. If the plasma does not strike within 15 seconds, slowly adjust the RF power upward until the plasma strikes.

10) Adjust the RF Power Control until the analog power meter reads the desired forward power. A typical descum power range is from 5-10 watts, more aggressive surface cleaning can be accomplished at power levels between 50-200 watts. If operating above 100 watts forward power, adjust the Power Meter Scale accordingly.

11) When process timer times out, the RF power shuts off and the chamber will pump to base pressure for a period of 30 seconds. After the 30 second delay the Cycle Complete lamp will blink and the chamber will automatically vent to atmosphere. The chamber reaches atmosphere in about 60-75 seconds.

12) Once the chamber is at atmospheric, carefully lift up on the Door Release and tilt the door forward. DO NOT FORCE the door open, permanent damage to the door may result.

13) Remove sample and carefully close door, the system will automatically pump down and remain in an idle state until Vacuum Release or Cycle Start is pressed.