1. Make sure all valves are closed, including the CO₂ main valve. Make sure the Power and Heat switches on the unit are in the OFF position.

2. Place enough 100%, dry ethanol in the chamber to cover the sample completely.

3. Make sure that O-ring is in place and screw down cover securely. Check O-ring for any flaws, bubbles, breaks – found use new O-ring.

4. Open main valve on CO₂ tank. Carefully open the COOL valve enough to let CO₂ cool the chamber to around 0°C.

5. Once chamber is cooled, close COOL valve and carefully open the INLET valve so that a very small stream of liquid CO₂ fills the chamber completely. Once full, open the INLET valve a few more turns.

6. Leaving the INLET valve open, slowly open the PURGE valve until ethanol can be seen exiting from the tygon tubing. Pay attention to the temperature, as it will want to creep up. Do not allow it to go above 10 C. Open the COOL valve if needed.

7. Once CO₂ appears to be spraying out of the tube, test the CO₂ with a brown paper towel for “wetness”. Any ethanol will cause the paper to appear wet. Once the paper is obviously staying dry, close the PURGE valve.

8. Make sure the chamber is completely full of liquid CO₂ and then close the INLET valve.

9. Make sure all valves are closed, including the main CO₂ tank valve.

10. Turn ON both switches. Wait for the temperature to reach 34-38 C and the pressure to reach 1250 psi.

11. Once the temperature and pressure have been reached, let the unit maintain this state for another 2 minutes.

12. Begin to bleed the gaseous CO₂ by slowly and carefully opening the BLEED valve. The pressure should be allowed to escape slowly, around 100 psi/min.

13. Once the unit has reached 250 psi or lower, open both BLEED and PURGE valves to allow the chamber to equilibrate with atmosphere and then carefully open the chamber and remove your specimen.

14. Close all valves and turn both switches to OFF.

15. Replace cover with or without the O-ring to keep the chamber free of debris.

16. Record your run(s) on the sheet and any other information required (such as billing info if needed.)