

MANUAL SETUP

1. Log in your FOM account.
2. Press the red power button to turn **ON** the HF-8.
3. Turn **ON** the vacuum pump and the water in/out valves on the wall.



NOTE: The open position of the water is when blue handles are parallel to the water lines. The picture is showing the closed position.

4. Flip down the panel on bottom right in front of the system. Move the **VAC** switch to **close** and move the **VENT** switch to **open**. This will vent the chamber.



5. Open the door of the process chamber and move the **VENT** switch to **close**.
6. Place your sample in the chamber and close the door of the process chamber.

NOTE: The plate in the process chamber is slippery and samples may slide. Use glass slides to hold your sample in place if necessary.

7. While pushing inward on the process door move the **VAC** switch to **open**. This will pump down the process chamber and take approximately 3 min for the chamber to achieve a base pressure of 30 mTorr.
8. Once at 30 mTorr move the **MODE** switch to **MAN** for manual mode.



9. Under the **FLOW** section turn **ON** your desired gas. Adjust the flow rate of the gas using the knob to achieve the desired working pressure of your process. Typically, the gas used for this process is oxygen for an oxygen plasma etch.



10. When your pressure is obtained, move the **RF POWER** switch to the **ON position** and turn the power knob to the right until you reach the desired wattage. Once the wattage is obtained, check the reflective power by pressing up on the RF power switch. The reflective power will be displayed in the power screen and should be at or under 5% of the forward power.



11. At this point you should see a plasma in the chamber. If you want to time the process by sight, turn **OFF** the lights for better visual inspection and use a timer.
12. After the sample has been exposed to the plasma for the desired amount of time, switch **RF POWER** to **OFF** and move the **FLOW** process gas switch to **OFF**.
13. Wait 30 seconds to allow the vacuum pump to remove the process gas.
14. Move the **VAC** switch to **close** and move the **VENT** switch to **OPEN** to vent the chamber. You will hear a low hissing sound when the door is ready to be opened.
15. Open the door of the process chamber and move the **VENT** switch to **close**.
16. Remove your samples and close the process door.
17. While pushing inward on the process door move the **VAC** switch to **OPEN**. This will pump down the process chamber and take approximately 3 min for the chamber to achieve a base pressure of 30 mTorr.
18. When you have achieved the base pressure of 30 mTorr move the **VAC** switch to **CLOSE**.
19. Turn **OFF** the vacuum pump and the water in/out valves on the wall.
- NOTE:** Open position is when blue handles are parallel to the water lines.
20. Press the red power button to turn **OFF** the HF-8.
21. Log out of your FOM account.