

Glove Box Standard Operating Procedures:

Inserting objects into box:

1. Check to see if anyone else is using box.
2. Check to see the inner port door is closed.
3. Check to see if port is under vacuum.
4. Shut off vacuum (VAC valve should be almost perpendicular to pipe and parallel to port)
5. Turn on $N_2(g)$ (small green valve, should now be parallel to pipe)
6. Turn off $N_2(g)$ when round gauge above the VAC reads approximately -1 psi (below 0).
7. Open outer port door. This should require force if a slight vacuum is maintained in step 4.
8. Insert your stuff into port and close the door.
9. Pull VAC valve parallel to the pipe to evacuate port.
10. Watch pressure gauge go down below $-30''$ H_2O .
11. Backfill with $N_2(g)$ again (Steps 3 and 4).
12. Repeat steps 9 - 11.
13. Repeat steps 9 - 11.
14. Backfill with $N_2(g)$ until pressure is equalized between box and port (pressure can go to 0 psi).
15. Open inner port door and remove your stuff and close port door.
16. Put the port under vacuum again.

Removing objects from the box:

1. Check to see that outer door is closed.
2. Check to see if port is under vacuum.
 - a. If it is do steps 4, 5 and 14 above.
3. If port is not under vacuum check to see if it was open to air last.
 - a. If port contains air (O_2) then repeat steps 9 through 13 above.
4. If port now contains $N_2(g)$ open inner port door and place your objects inside.
5. Close inner port door.
6. Open outer port door and remove objects.
7. Pull VAC valve parallel to the pipe to evacuate port.