

# Project: V2 Premium Upgrade Kit

**Project: V2 Premium Upgrade**  
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The standard V2 and V2 Plus systems are a great value for users with small to medium size compressors but if you want the ultimate vacuum press system, the V2 Premium is the way to go. You'll need a larger air compressor to step up to the V2 Premium. From there, you'll only need this 12-piece upgrade kit to get the maximum performance from your V2 system.



The V2 Premium Upgrade Kit consists of the following parts.

- Vac-Pro Premium with silencer (with lifetime warranty)
- Series 200 Mac valve
- Brass check valve (high-flow, male-female)
- Brass barbed fitting (3/8" NPT to 3/8" barb)
- Brass barbed fitting (1/4" NPT to 3/8" barb)
- Screws: #8 x 2" (4)
- Plastic spacers (2)
- One foot of 3/8" ID braided tubing

## Disassembly

1. Begin by removing the quick connector and breather fitting from the original Mac valve. You will need this part for the new Mac valve.
2. Next, remove the Mac valve and venturi assembly from your current V2 vacuum press. You will need to disconnect the wiring from the switch as well. The Mac valve, venturi, and the small brass barbed fitting on the venturi will not be used in the upgrade.
3. Remove the brass "close" fitting that connects the Mac valve to the venturi. Keep this fitting. It will be used in the assembly steps.
4. Remove the brass check valve, coupler, and barbed elbow from the system manifold. These parts will not be used in the upgrade.

## Assembly

1. Apply thread sealing tape to all of the male sides of the fittings for this assembly.
2. Attach the breather fitting from the original V2 kit to port #3 on the Mac valve.
3. Attach the compressed air quick connector from the original V2 kit to port #1 on the Mac valve.
4. Attach the brass "close" fitting from the original V2 kit to port #2 on the Mac valve.
5. Attach the check valve to the vacuum port on the venturi.
6. Attach the 3/8" NPT to 3/8" brass barb fitting to the check valve.
7. Attach the venturi to the close fitting on the Mac valve so it is oriented as shown below.
8. The final assembly should appear as shown in the picture on the next page.



### Attach the Vacuum Generator

1. Locate the area on the carrier where the assembled venturi will be mounted. Use the picture on the first page of this article for reference.
2. Using two #8 wood screws (2" long) attach the Mac valve to the top of the carrier as shown below.
3. Then place two vinyl spacers under the holes on the venturi and use two more #8 wood screws (2" long) to attach the venturi to the carrier as shown.

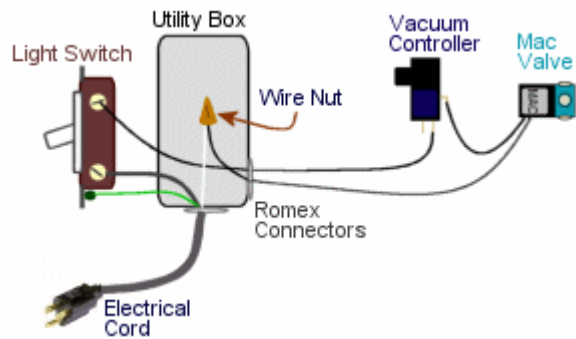


4. Attach the 1/4" NPT to 3/8" barbed fitting to the manifold (brass cross).
5. Attach the piece of the black tubing from the vacuum controller to the brass barbed fitting on the lower end of the manifold assembly. You may have to trim it to fit neatly.
6. Cut a piece of braided vacuum tube and connect it between the barbed fitting on the venturi and the barbed fitting in the top-middle of the manifold.

## Wiring Check

Let's re-examine the path of electricity. Start with the black wire from the electrical cord. The flow should go this way:

- The black A/C line goes to a switch terminal.
- From the other switch terminal, a black power line is going to the normally closed tab on the vacuum controller.
- The power then flows from the common tab on the vacuum controller to the Mac valve.
- The remaining wire on the Mac valve goes to the white wire on the electrical supply cord.



*Completed Wiring of the Press*

## Pneumatic Testing and Adjustment

Set your air compressor to put out 95 to 100 psi and attach your compressed air line to the quick connector on the Mac valve. It is ok if your compressor is putting out more than 100 psi. This will not harm the system. Next, close the vacuum valve by turning the handle to the left or right until it stops.

With the light switch turned off, plug the electrical cord into your wall socket. No air should flow through yet. Flip the switch and air should begin flowing through the venturi. The needle on the vacuum gauge should rise. The vacuum controller will probably shut off before it reaches 21" of Hg. Notice that there is a small plastic cap on the vacuum controller just in front of the "common" tab. Under this cap is where the adjustment is made for setting the amount of vacuum inside the unit.

For the next stage of testing, you will want to carefully adjust the vacuum setting to 21". Using a small flat screwdriver, slowly turn the adjusting screw counter-clockwise until the unit creates 21" of vacuum and cycles off. Remember counterclockwise turns of the screw will increase the amount of vacuum required before the vacuum controller will turn off the air pressure at the Mac valve. I've found that most often, 21" of Hg is when there is about 1/8" of threads showing above the adjustment screw.

## Congratulations!

Your Project: V2 Premium system is complete!

