VP25-26 Rev B Assembly Guide Addendum

We are now shipping the Rev B version of the VP26. The VP25 and VP312 will follow shortly. Currently, the VP2x Assembly Guide is being reworked and rewritten. Many of the steps will either be the same and nearly the same. Some of the steps will change considerably. 'Chung will be photo documenting a new build that I can adapt and use for the new Rev B Assembly Guide. Until that is done, you will have to make some adjustments and be careful about your builds. Experienced guys will have no problem. Newbies should be extra cautious.

Please be sure and read thru this entire document before starting. A few minutes now can save you hours in the future!!

Below are some tips and pointers to help get you thru it.

1. Use only the proper Rev B BOM when stuffing your boards. Following the BOM shown in the Assembly Guide or an older Rev A BOM will cause many issues.

2. Fell free to use the old VP2x Assembly Guide as just a *general* guide. The things specified here will take precedence over what is mentioned in the guide.

3. An overall change is the ground plane has been moved from the bottom of the board to the top. This means that it is not really needed or recommended to solder from the top first. The boards go together just fine with the old method of installing the component, holding in place while flipping the board over, then slightly bending the leads outward to hold it in place. Next solder from the bottom and trim the leads. Leave the top of the PCB as is.

4. Until the L-bracket and faceplate stock catch up, there will be no phantom LED supplied with the kit. I have decided to include the 10k current limiting resistor just to make things easy incase someone puts that one in first and then realizes it should have been used elsewhere! You can easily add this LED if you feel like drilling the faceplate. I recommend a drill press and use a 3mm bit. The proper LED part# is listed in the new BOM.

5. Install the C&K pushbutton switches **after** the Bourns t-pad. This will give you some more room to work when fitting the t-pad.

6. If you have the stepped gain option, install all the RG resistors before the Grayhill switch. The GH switch can be put in so the tan, plastic shroud is fit tight to the PCB. Just keep the body of the switch parallel with the PCB and the alignment will be very good with the faceplate. Use the stepped gain schematic as the BOM for these resistors.

7. The Bourns t-pad should be fit loose and installed using the **exact** same theory that the old Assembly Guide shows for the Bourns 25k gain pot. In fact, if you have the variable gain version, both Bourns pots can be installed the same way at the same time. You will have access to 3 of the bracket pins on the t-pad (since we left the C&K switches out until after). Soldering those 3 will hold it in place just fine until you take things apart to finish soldering all the pins. Be careful to not heat the pot too much. Waiting a little between the pins is a good idea.

8. DO NOT USE THE LENGTHS PUBLISHED FOR ANY OF THE OUTPUT TRANSFORMER LEADS!!! Besides the placement of the pads being different, we have had occasions where the winder brings the colors out in reverse order. To eliminate any possible problems and confusion, I recommend fixing the output transformer to the PCB with the supplied hardware, and then manually figuring out where to cut each lead. Be careful and again, I'd rather cut it 2 or 3 times to get it right than cut it once and have it be short.

9. For the 48V toggle, I have found it much easier to solder the leads to the PCB **before** soldering to the switch. This way, the PCB can be attached to the L-bracket with the faceplate (for the final time!) with the toggle going in next and the last step being the soldering of the leads to the toggle. It's a little less juggling around this way.

***As a special tip, if no phantom LED is used, I do highly recommend adding a short piece of green lead from the normally unused pin of the 48V toggle switch to the LED pad that the diode arrow points to. This will quickly, efficiently and positively 100% drain the 120uF cap when you turn the phantom switch off. No need for this with an LED as the cap will drain to ground thru the LED in a few seconds.

That should do it! Now get to work!!!