



August 1, 2015

Hoffman Blues Junior Performance Issue Description

This amp project is built from a new blank chassis and the Hoffman Blues Junior Kit. The amp is utilizing a TP24 PT and a TO22 OT. I also added a Hammond 166E36 transformer to replace the bias supply windings on the TP24 in support of 6V6 power tubes. The brown wires on the TP24 were insulated and tucked aside.

Current Symptoms:

- Low Volume/Lack of Power
- Mild Distortion on cleanest settings
- Meat control doesn't seem to have any affect

Current Positives

- Solid power system
- Good voltage readings
- Good stable control of bias

Start Up Blunders

- Had red AC lead connected to a termination tab that was grounded. That blew a fuse.
- I corrected that mistake and one small wiring issue and the amp was up and running.
- Real grainy at first. I consolidated some grounding and that helped tremendously
- Started the amp twice without a speaker connected.

Modifications

- After I had the amp stabilized I made a few component changes looking for a culprit.
- Upgraded the 47 uF Power Capacitor to a 100 uF component.
- Made some modifications to the capacitors in the signal path
- Modified some of the power resistors R35 & R36 changed from 100 ohm to 470 ohm.
- Modified R48 & R49 changed from 10K ohm to 2,2 K ohm

Troubleshooting

- Re-traced the layout at least 5 times
- Reworked all of the tube leads
- Changed pre-amp and power tubes
- Tested all of the resistors for proper placement and value
- Re-flowed any questionable connection points

Summary

- There is a great tone hiding just underneath some very mild distortion.
- It appears that I have all of the wiring correct, but I cannot rule out anything.
- I have attached a schematic with my modifications highlighted in red
- Any thoughts on things to check and theoretical causes would be very much appreciated.