

Stereo Amplifier: Motherboard Jumpers and Daughterboard Header Pins

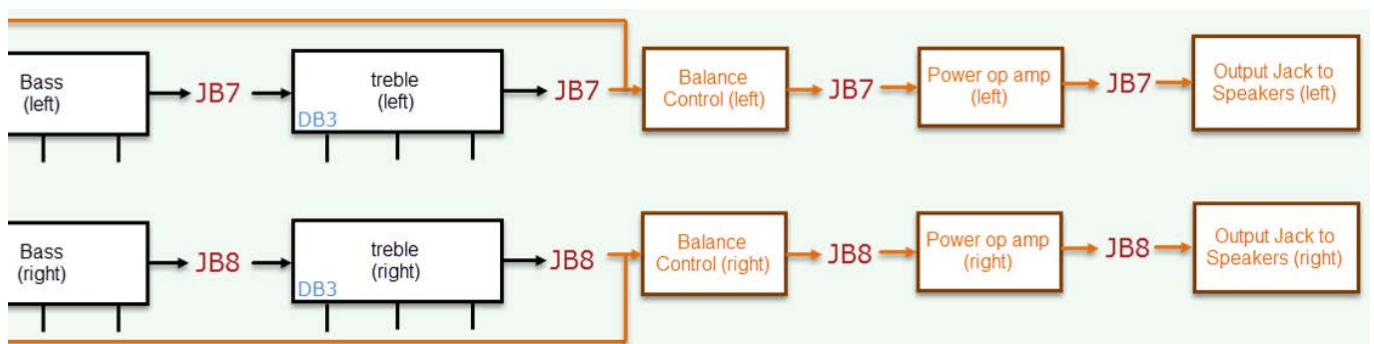
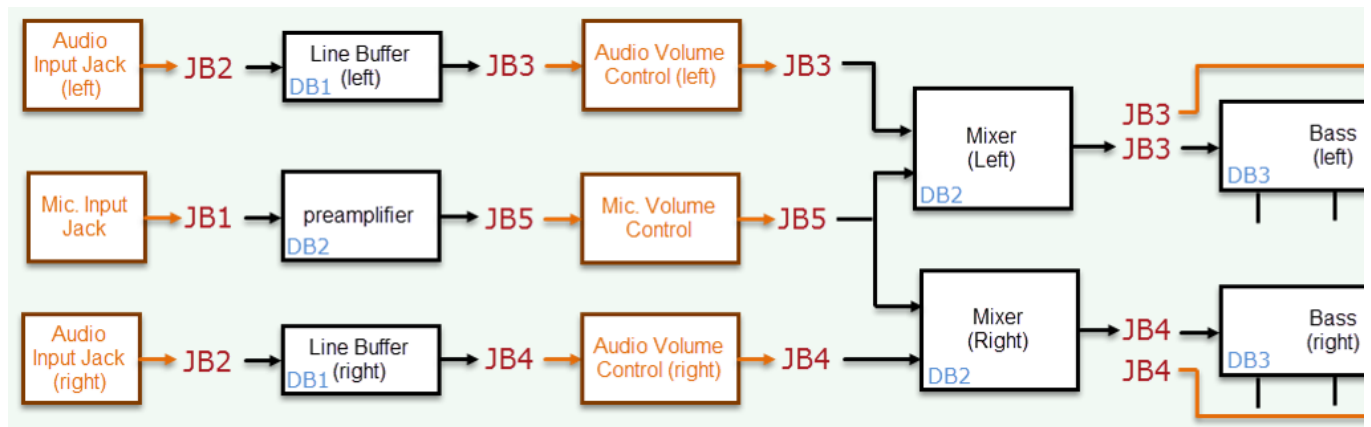
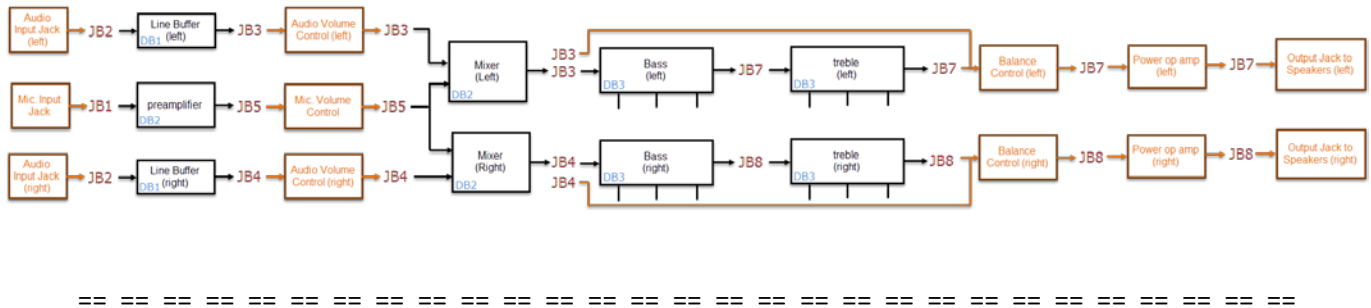


Figure 1 (a) Functional block diagram of Audio Amplifier (Motherboard and Daughterboards)

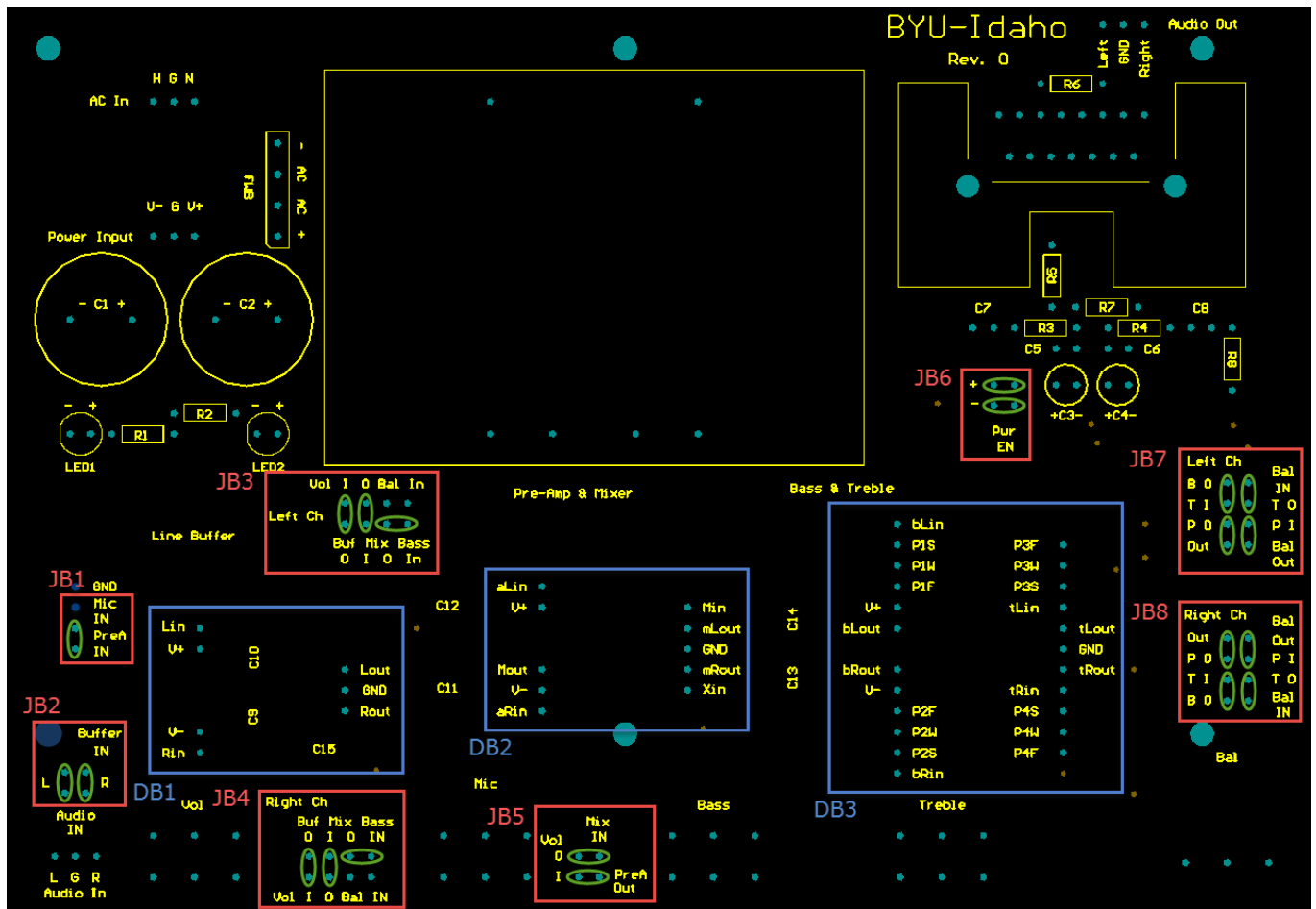


Figure 1 (b) Stereo Amplifier Motherboard with Jumper Blocks (JB) and Daughterboard (DB) header pins highlighted.

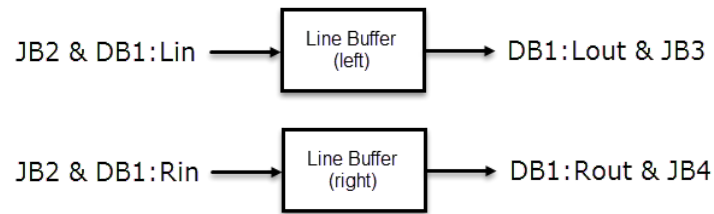


Figure 2 (a) Functional block diagram of Line Buffer Daughterboard DB1.

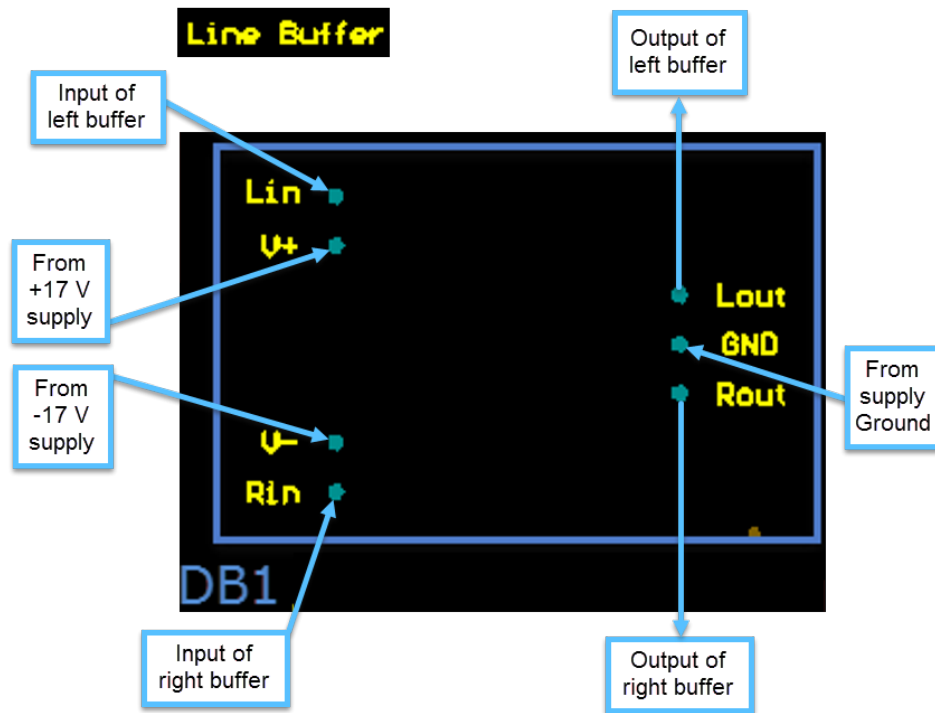


Figure 2 (b) The two 2-pin and one 3-pin headers for the line buffer daughterboard are defined.

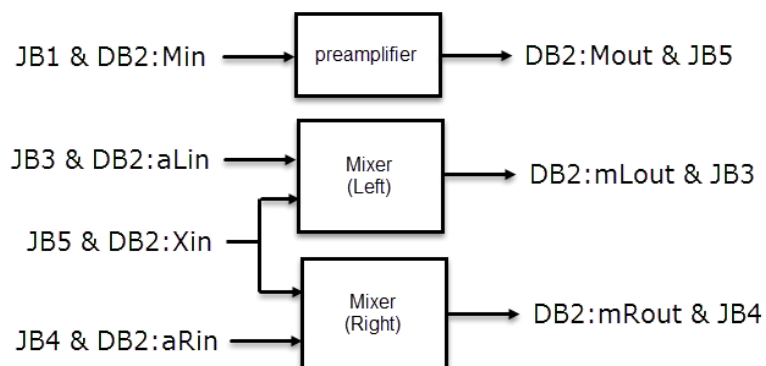


Figure 3 (a) Functional block diagram of Microphone Preamplifier and Mixer Daughterboard DB2.

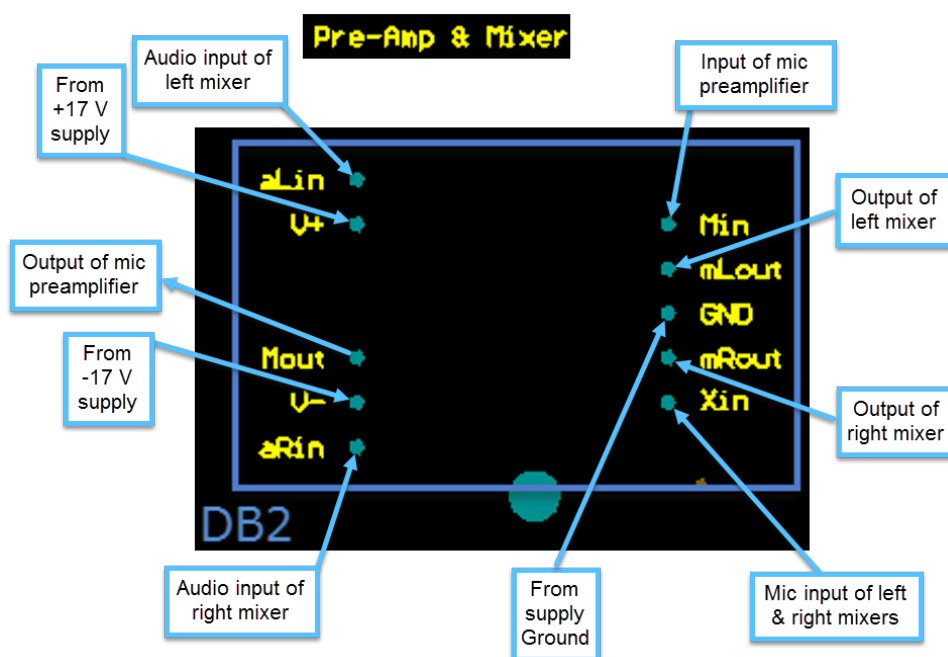


Figure 3 (b) The 2-pin, 3-pin, and 5-pin headers for the microphone preamplifier and mixer daughterboard are defined.

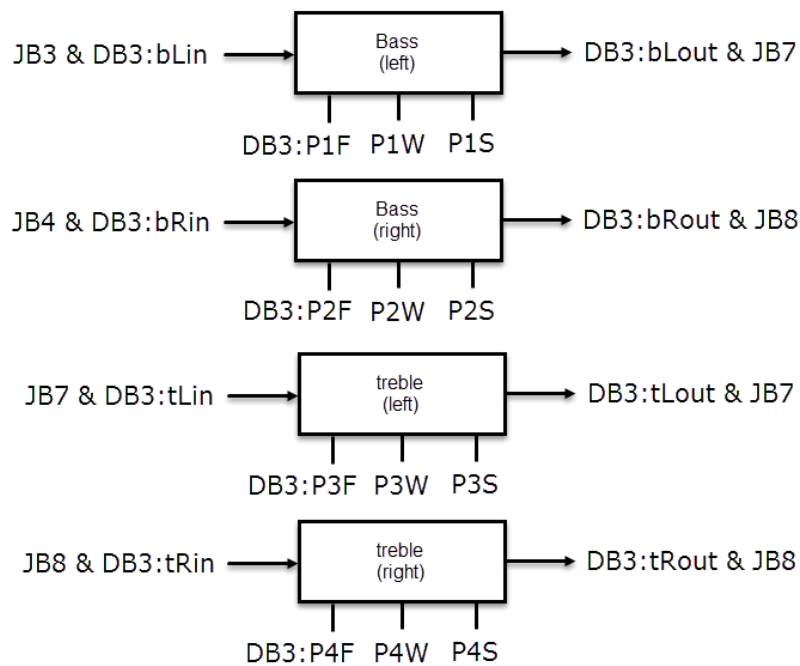


Figure 4 (a) Functional block diagram of Bass and Treble Control Daughterboard DB3

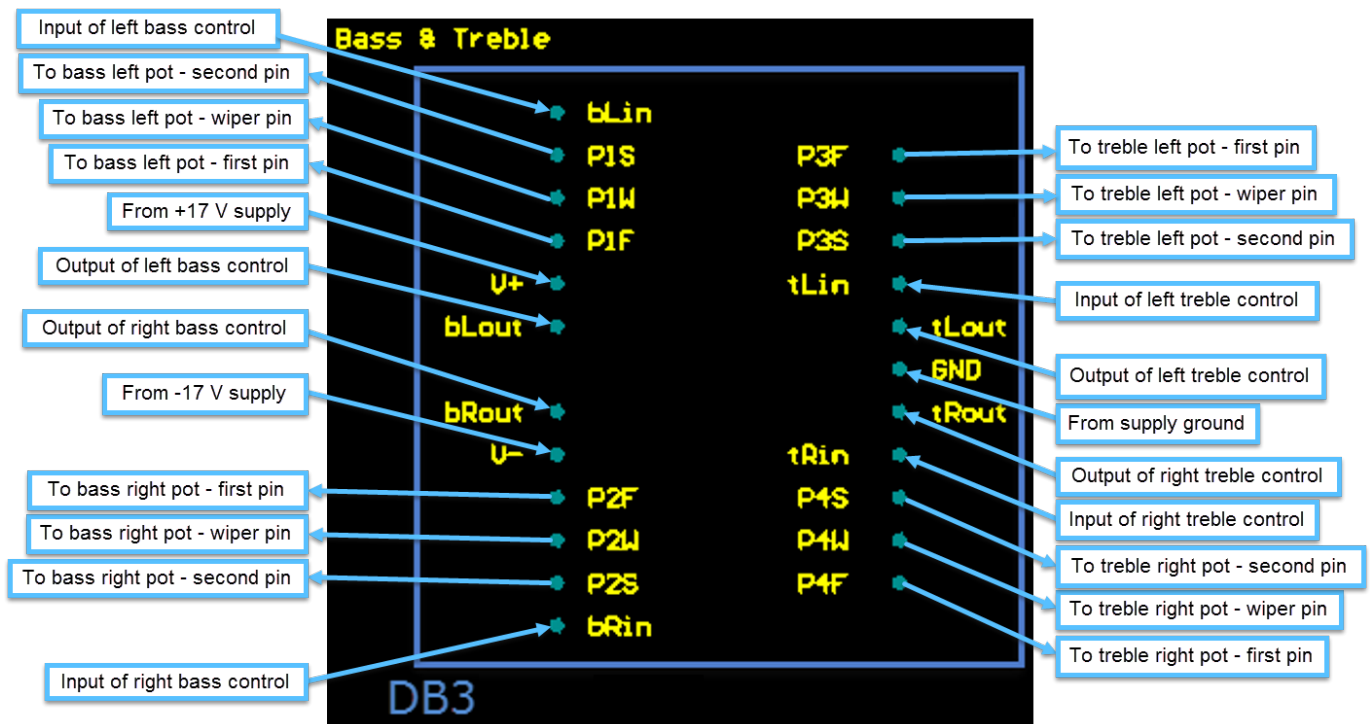


Figure 4 (b) The two 6-pin and one 11-pin headers for the bass and treble daughterboard are defined.

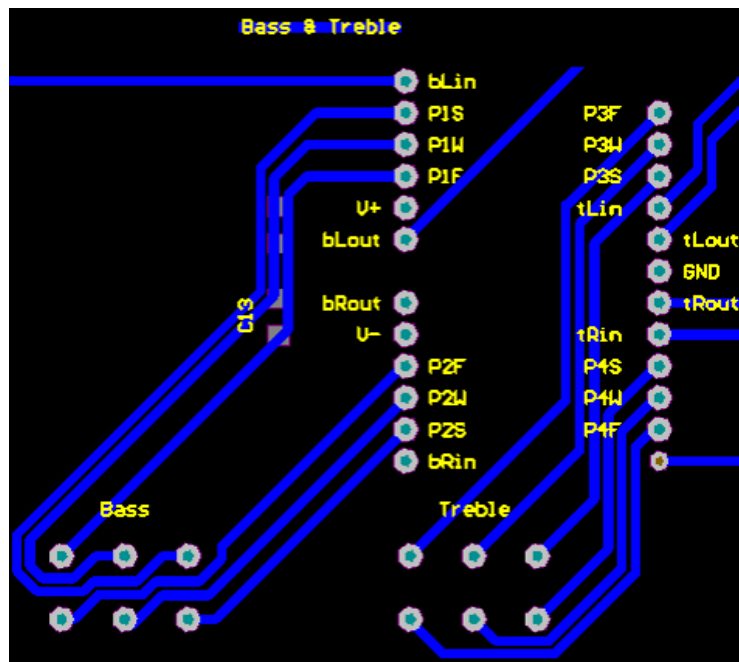


Figure 4 (c) Traces showing how the bass and treble pots are connected to DB3 header pins

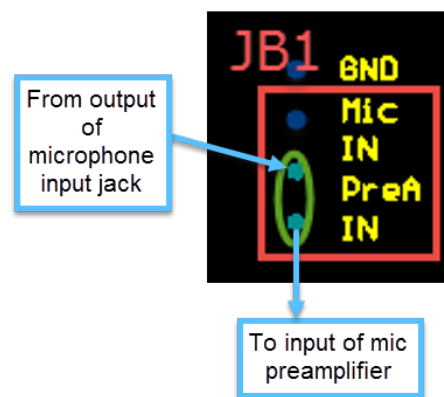


Figure 5 Jumper block JB1 connect the microphone input to the microphone preamplifier.

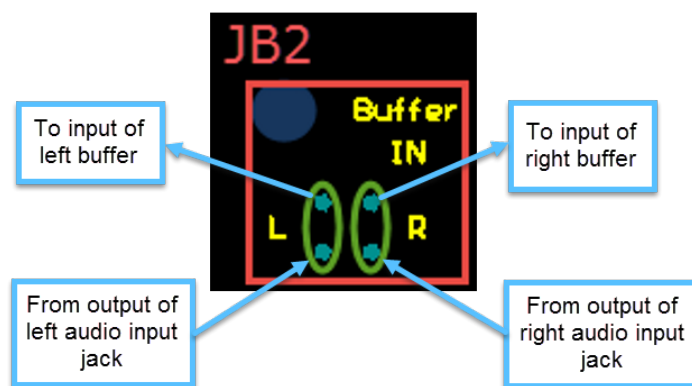


Figure 6 Jumper block JB2 connect the left and right audio inputs to the corresponding left and right line buffer inputs.

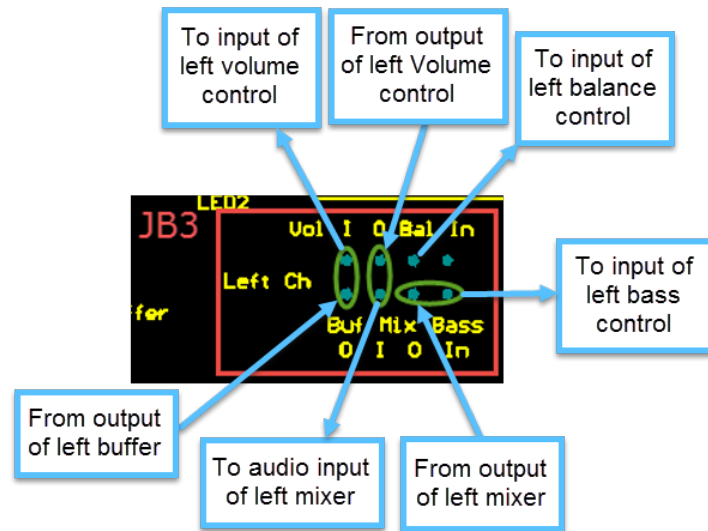


Figure 7 Jumper block JB3 connects (left channel) 1. The line buffer output to the audio volume control input, 2. The audio volume control output to the mixer audio input, 3. The mixer output to the bass control input, and 4. The balance control input can be also be connected (not shown) at this jumper block for debugging purposes.

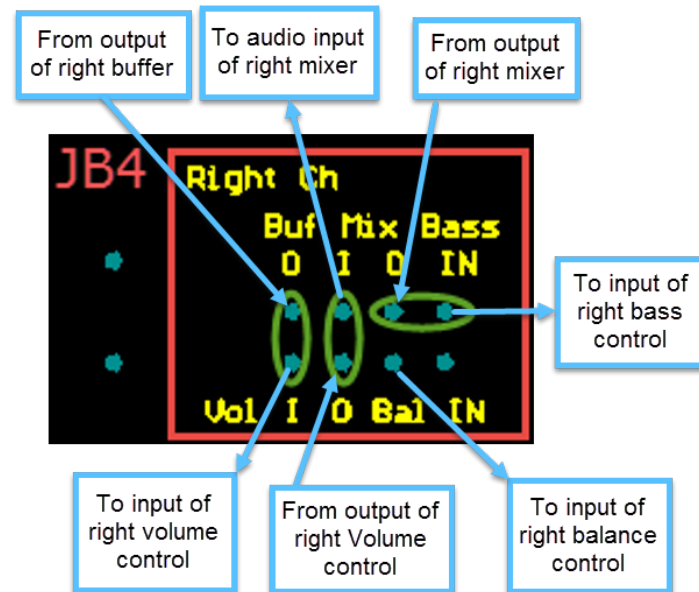


Figure 8 Jumper block JB4 connects (right channel) 1. The line buffer output to the audio volume control input, 2. The audio volume control output to the mixer audio input, 3. The mixer output to the bass control input, and 4. The balance control input can be also be connected (not shown) at this jumper block for debugging purposes.

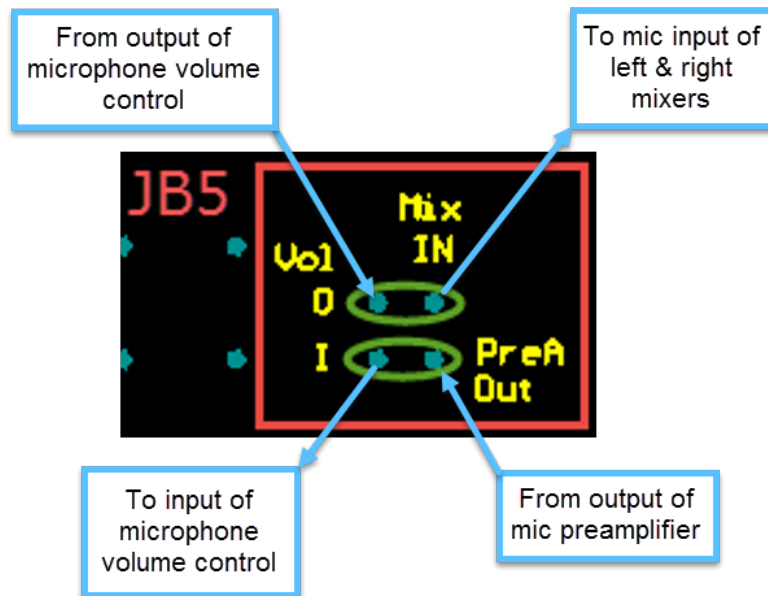


Figure 9 Jumper block JB5 connect 1. The microphone volume control output to the mixer microphone input, and 2. The mic. preamplifier output to the microphone volume control input.

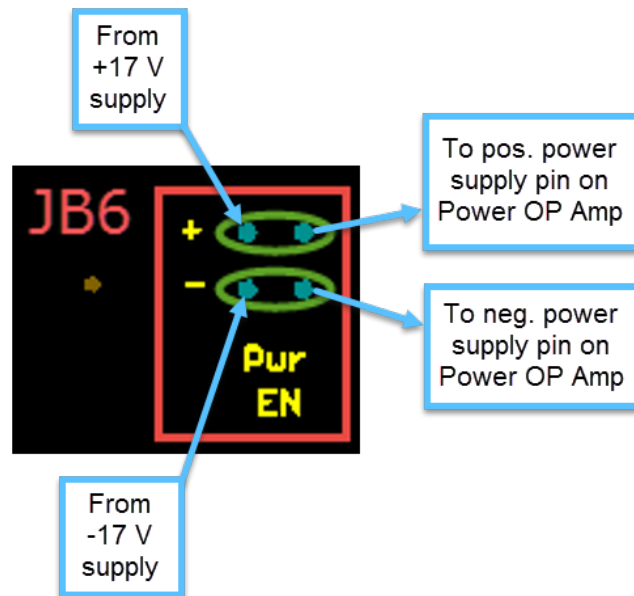


Figure 10 Jumper Block JB6 connects the positive and negative supply voltages to the corresponding power op amplifier supply pins. NOTE: BE CAREFUL NOT TO CONNECT THE POSITIVE AND NEGATIVE SUPPLY VOLTAGES TOGETHER (not shown). The next motherboard design will have the two rows of pins spaced farther apart so that a jumper cannot be placed in a way that shorts the power supplies together.

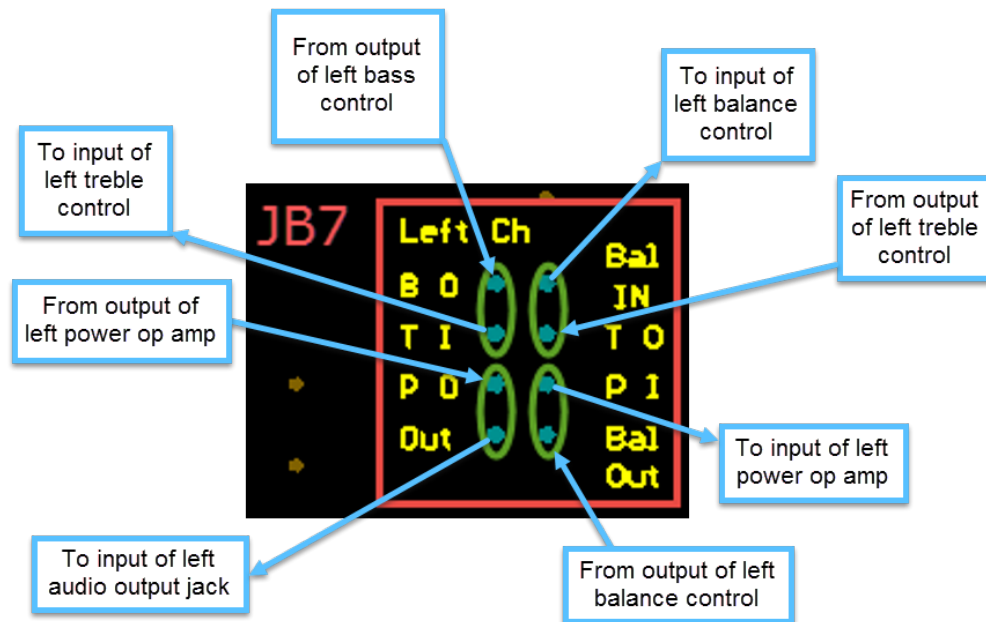


Figure 11 Jumper Block JB7 connects (left channel) 1. The bass control output to the treble control input, 2. The treble control output to the balance control input, 3. The balance control output to the power op amp input, and 4. The power op amp output to the audio output jack.

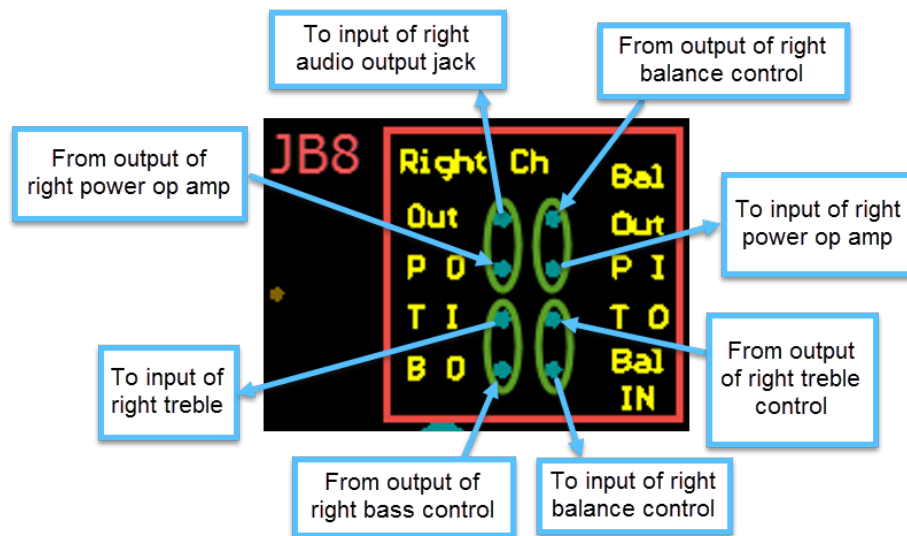


Figure 12 Jumper Block JB7 connects (Right channel) 1. The bass control output to the treble control input, 2. The treble control output to the balance control input, 3. The balance control output to the power op amp input, and 4. The power op amp output to the audio output jack.

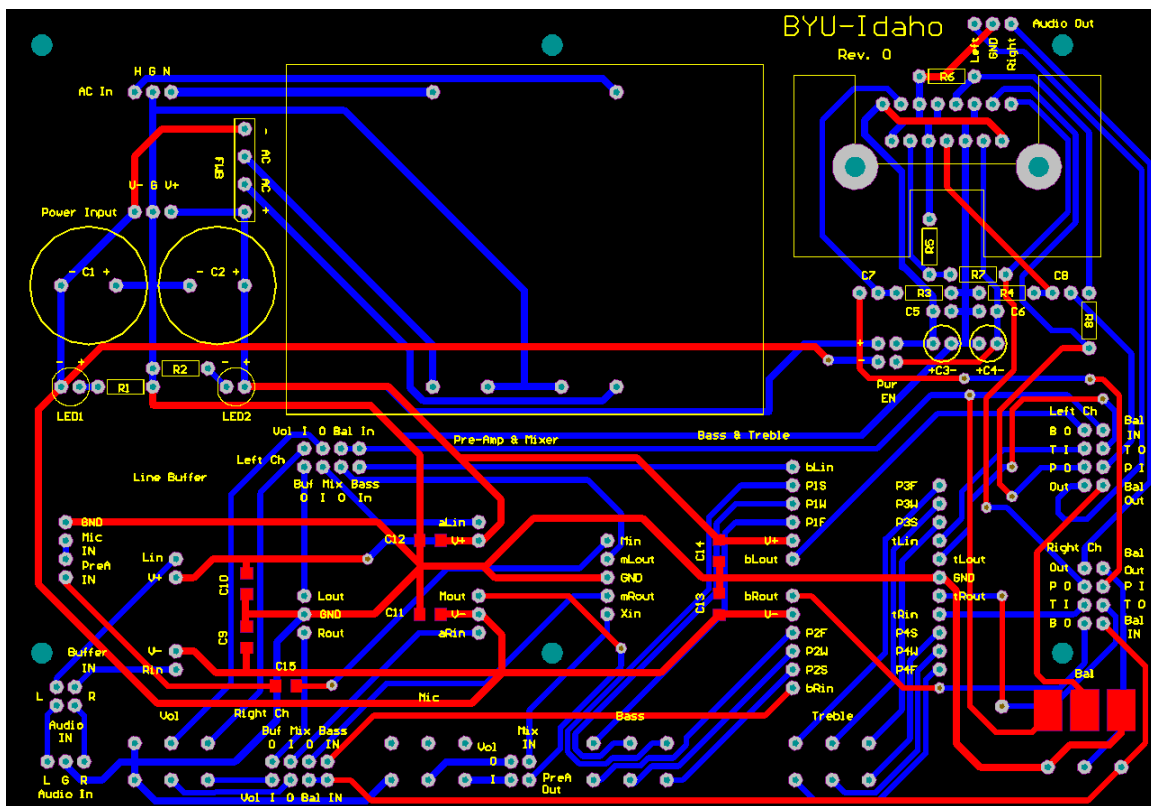


Figure 13 Top and bottom traces on the motherboard.