

Dear Customer,

Congratulations on Purchasing VASP Electronics MYPCB Amplifier Board.

By following simple steps you can ensure years of great sound.

Installation:-

- Always use good quality Soldering Iron and Solder wire. After soldering components, check for solder overflow / dry / non-connections or shorted solder joints, else the amplifier will not work.
- Always use good quality heat sink paste and/or thermal pads between the components and heat sink.
- Securely Fix Biasing , Drivers and Power Transistors on suitable heat sink with insulators.
- Do not exceed recommended supply voltages.
- Never operate the Amplifier without a heat sink.
- If possible, try to connect the Ground Terminal of speakers to the power supply board.
- Before applying power - check for any short circuits between power supplies, input, output and ground.
- Before applying power - make sure the biasing potentiometer (RV1) is in center position.
- To Set biasing current - slowly adjust the Biasing Pot (RV1) without input signal. Test voltage across TP1 and TP2, idle Biasing Current of 15-20mA (6mV - 9mV) will work fine for most conditions. Suggested Optimum Biasing current = 45 - 60mA (20mV - 26.5mV).
- To set Gain - **R2, R11** = 22K Gain = 26.8 dB (Normal Gain) for use with Pre amps and mixers.
R2, R11 = 33K Gain = 30.4 dB (High gain) for use with input from mobile phones / USB players.

Specifications:-

Amplifier Type

- Emitter Follower Class AB Amplifier
- LTP - Long tailed pair with current source and current mirror
- VAS - Darlington VAS with Biasing Control Preset RV1
- Output - NPN PNP Transistors in Enhanced Emitter Follower configuration.

Input and Gain

- Input Sensitivity - 200mV to 1.5V (Peak to Peak) 3V AC for Max power.
- Signal Gain - 26.8 dB (Default)
- Frequency Response (20Hz - 20Khz) - ± 0.5 dB
- Noise at Output - 110 nV/Hz^{1/2}

Dynamic RMS output at Various Supply Voltages

Load = 4 ohm Resistors , 2SC5200 2SA1943 Transistors, 1Khz Sine wave

- ± 18 v DC = 45 Watt
- ± 24 v DC = 80 Watt
- ± 35 v DC = 100 Watt (Recommended)
- ± 45 v DC = 200 Watt (High Heat)

Transformer and Rectifier Recommended

- Transformer - 24 - 0 - 24 VAC - 5 Ampere or Better
- Rectifier - 10 Ampere or Better
- Filter Capacitors - 4700uf or Better

For more information , please visit **VASPELECTRONICS.COM**