# Quicksilver Audio Mid Mono Amplifier Operating Instructions

Thank you for purchasing the Quicksilver Audio Mid Mono Amplifiers. These amplifiers are engineered to have a very wide bandwidth, extremely low distortion and superior dynamic range.

The output transformer used in this amplifier is based on the best designs of the past but uses superior new materials to achieve a very high level of performance. The high frequency characteristics of this transformer are very stable. Many different output tubes may be used without the need for circuit changes or compensation adjustments.

This is an all tube design and uses no circuit boards or transistors.

#### **PLACEMENT**

The Mid Mono Amplifiers should have at least 6 inches of ventilation space on either side and at least 6 inches above them. If this is not possible, then use a fan for cooling.

#### SPEAKER CONNECTION

Five-way binding posts are used for speaker connection. For better sonic performance, we recommend using the screw-down part of the post rather than banana plugs to connect your speaker wire. Make sure the ends of the speaker leads do not touch each other. The rating on the back of your speaker system will determine whether you use the 4 or 8 ohm tap for the positive lead. Connect the negative or ground to the black post labeled C.

There is a diagram on the bottom of the amp that identifies the three posts.



#### 2 AMP SLO-BLO FUSE

Standard fuse value must not be exceeded. If a fuse blows, replace and check output tube bias. If there is a large change, then an output tube is probably damaged. If the bias has not changed then the cause of the fuse blowing may be due to other problems, such as poor system grounding, unstable preamp, shorted speaker, etc. Interchanging the amps between channels will help localize the problem to either the system or the amplifier.

#### **TUBES**

The input tubes in this amplifier were chosen for their specific performance characteristics. These tubes should last between one and two thousand hours. We can only guarantee the performance of this unit when used with input tubes supplied by Quicksilver.

Quicksilver ships the Mid Mono Amplifiers with matched EL34 tubes but many different output tubes can be used. The output tubes should be matched.

Output tubes will need to be replaced periodically. When a degradation in sound occurs, the fuse blows repeatedly, or the tubes will not hold their bias anymore it is time for new output tubes. We recommend purchasing tubes from Quicksilver Audio or your dealer and we recommend keeping extra fuses and an extra output tube on hand.

#### **OUTPUT TUBE BIAS SETTING**

Output tube bias should be set immediately when new tubes are put in; then again in 15 minutes; and periodically the first few times of using the amplifiers. After that the bias should be checked monthly.

The bias controls are located between the output tubes near the power and output transformers

To adjust the bias you will need a slot-head screwdriver. Adjust by turning clockwise to increase bias; counterclockwise to decrease bias.

Insert the black lead from the multimeter into the black pin jack on the amp. Insert the red lead into one of the red jacks on the amp. The bias control that corresponds to offset of that jack is the one used to adjust the bias of one tube. The millivolt reading on the meter is actually the bias current in ma for one tube. Both tubes should be set to the same bias and 40 ma is a good starting point. Larger tubes like the KT series of tubes can run higher bias and can be set where you feel the sound is best.

Maximum bias is 50 ma for EL34s and 75 ma for the KT series tubes. The two bias controls do interact somewhat so you may need to set the bias on each tube more than once. The closer in bias the two tubes are set, the better the amp will sound.

#### WARNING

This device has very high internal voltages. Never operate with the bottom removed!

Never operate your amplifers with the speakers disconnected.

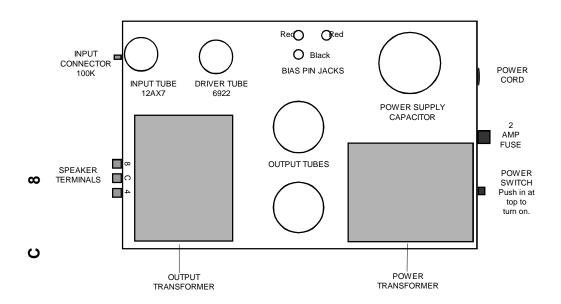
To prolong the life of your amplifiers, never turn them off and then on within a short period of time (45 seconds.)

## MidMono Amplifier:



The following diagram is on the bottom of each amplifier:

### Quicksilver Audio Mid Mono Amplifier Bottom View



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# Quicksilver Audio Mid Mono Amplifier SPECIFICATIONS

Power Output 40 watts into 4 or 8 ohms

Power Bandwidth 13 Hz to 100 KHz

Input Sensitivity 1.25 volts
Input Impedance 100 K ohms
Power Consumption 105 watts at idle

210 watts at full power

Tube Complement 1 - 12AX7 input

1 - 6922 driver

2 - EL34, 6L6, KT88,

KT120or KT150 outputs

Dimensions 5 1/2' high x 14 1/2%deep

x 9 1/8+ wide

Finish Black chassis

Black transformers and capacitors

Weight 28 lbs., 32 lbs. shipping Warranty 3 years parts and labor

Tubes 90 days

#### WARRANTY

Quicksilver Audio warranties your amplifiers for a period of 3 years from the date of purchase (90 days on tubes.) Parts and labor are provided free of charge as long as the failure was not caused by misuse, accident or negligence. Shipping to the factory is not included.

Retain at least one packing carton in case a unit needs to be returned for service.

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