

# Quicksilver Audio Silver 88 Amplifier

## Operating Instructions

*Thank you for purchasing the Quicksilver Audio Silver 88 Amplifiers. These amplifiers have been 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 so stable that any type of loudspeaker may be used.*

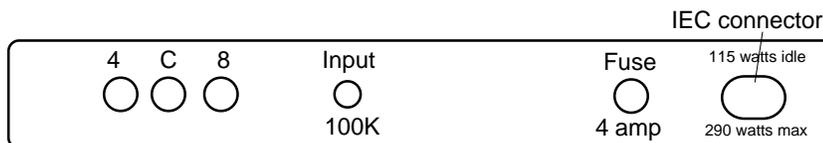
*This is an all tube design and uses no circuit boards or transistors.*

### PLACEMENT

The Silver 88 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

Gold plated 5 way binding posts are used for speaker connection because of their sonic performance. Placing the amp directly behind the speaker with a very short speaker wire will further improve the performance. The connection to the 4 or 8 ohm tap will be determined by the rating on the back of your speaker system. The C terminal should be connected to the common, ground, or negative terminal of your speaker.



### SYSTEM GROUNDING

**At least one component of your system should always be grounded.** Your Mono Amplifiers come with three pronged grounded AC plugs. In some systems, where the preamp is also grounded, a ground loop may appear as a low level hum. Using an adaptor on the AC plug, to lift the amplifier grounds, will solve this problem.

### 4 AMP SLO-BLO FUSE

Standard fuse value must not be exceeded. If a fuse blows, replace and turn amp back on. Check the bias on each output tube. If the bias on one tube has changed by a large margin or there is no bias, then that tube is probably bad and should be replaced. If the output tubes appear to be okay, then the cause of the fuse blowing may be due to 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 12AX7 and 12BH7 input tubes are chosen for their specific performance characteristics and should last several years or many thousands of hours. We can only guarantee the performance of this unit when used with input tubes supplied by Quicksilver.

Each Silver 88 Amplifier is shipped with 2 matched KT88 output tubes. Best performance will result when both tubes are matched by Quicksilver Audio.

Output tubes *will* need to be replaced periodically. When a degradation in sound occurs or the fuse blows repeatedly, it is time for new output tubes. We recommend purchasing tubes from Quicksilver Audio or your dealer, and we recommend keeping an extra output tube on hand in the event that one fails.

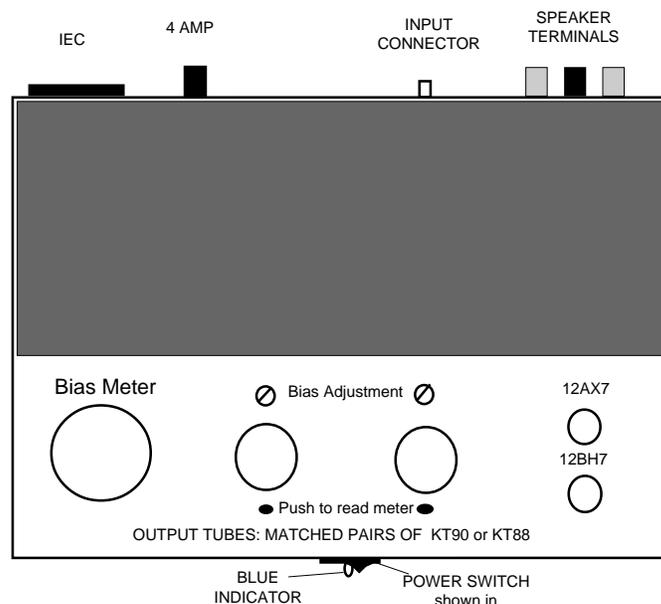
### OUTPUT TUBE BIAS SETTING

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.

Recommended bias is 40 ma and should be set the same for both output tubes. Do not adjust the bias while music is playing as meter damage could result.

Bias controls are behind each tube. To check the bias push the button in front of the tube you want to check and note the reading on the meter. Each tube corresponds to the black button nearest it. The amp may sound a little better with higher than 40 ma bias on some speakers and lower than 40 ma bias on others, however the bias should always be the same on each output tube.

To adjust the bias you will need a slot-head screwdriver. Adjust by turning clockwise to increase bias; counterclockwise to decrease bias. Do this for each of the two output tubes. The two controls interact so each control will need to be adjusted several times. Actual bias is shown on the bias meter. Tube biases should be checked individually.



**Quicksilver Audio Silver 88 Amplifier  
SPECIFICATIONS**

Power Output	80 watts into 4 or 8 ohms from 20 Hz to 20 KHZ
Power Bandwidth	13 Hz to 80 KHz
Input Sensitivity	1.0 volt
Input Impedance	100 K ohms
Damping Factor	15
IM Distortion	1% or less at 80 watts
Power Consumption	115 watts at idle 290 watts at full power
Dimensions	15" wide x 9 3/4" deep x 6 1/2' high
Finish	Chrome chassis Carbide black transformer cover
Weight	38 lbs., 42 lbs. shipping
Tube Complement	1 - 12AX7, 1 - 12BH7 2 - KT88 or KT90
Warranty	3 years parts and labor Tubes 90 days

**WARNING: This device has very high internal voltages. Never operate with the bottom removed! Never operate your amplifiers with the speakers disconnected. To prolong the life of your amplifiers, never turn them on and off within a short period of time (45 seconds.)**

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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