



## Power-up and Adjustments

Ensure that all power switches are off. Plug components into the AC line. Plug the crossover into either a preamp's switched outlet or directly to an AC wall outlet. If amplifiers have level controls, turn them down. Turn preamp volume down. Select a source and turn power on. Slowly turn amplifier levels and/or crossover levels up.

Slowly turn the preamp up until music is heard softly. By now you have probably noticed that efficiency improvement. Before going further, ensure that highs are coming from the ribbons and lows from the woofers. If they are reversed or one is missing, turn power off and check connections.

**NOTE:** after you have listened for awhile, try reversing the phase of the ribbons OR the woofers.

The difference between having the drivers in- and out-of-phase is often very subtle. Out-of-phase may sound slightly warmer and have a wider soundstage while still retaining the extremely life-like quality of these speakers.

The magnitude behavior at the crossover frequency is a measure to determine if the drivers are phased properly. Wrong phase will produce a 6-9 dB dip (suckout) at the crossover frequency, properly phased drivers will crossover with flat magnitude.

## Adjusting the unit

Following controls are available from left to right on a ClearView CXR-22.

**Q:** Affects the slope and alignment of the woofer high pass filter. A lower Q is said to have a better transient response while a higher Q adds "bass". Adjust to your own preference. Total Q of the system is function of the Q of the crossover and the Q of the driver at the crossover point. The mid-position is recommended for initial listening. The standard high pass frequency for the woofer is 20 Hz.

**LP Level:** affects the output level of the woofer circuitry. This can be adjusted to match the power amplifier's sensitivity.

Ribbon Trim: affects the ribbon EQ behavior at the cavity resonance. The cavity resonance magnitude is a "variable" parameter due to planar magnetic ribbon design. It has been shown that this cavity resonance needs to be adequately suppressed for optimal performance of the planar magnetic driver.

**CXR 22 crossovers optimized for Bohlender-Graebener Radia drivers have an optimal 12'o clock position.**

The Ribbon Trim control is normally set at 12'o clock for flattest response under most conditions. Having said this, the effect of the control is subtle and you should put it where YOU like it. This actually controls the level of the midrange energy coming from the ribbon and has a significant influence on the "ambience" experience.

You may want to experiment with speaker toe-in and tilt-back.. The optimum placements may change slightly with your new crossover and amplifiers.

Ribbon Level: affects the output level of the ribbon circuitry. This can be adjusted to match the power amplifier's sensitivity.

### **Linkwitz Correction Circuitry for the Woofers.**

The units that are factory equipped with a Linkwitz Bass Correction module (Optional) have a switch inside the CXR-22. The unit is shipped with the Linkwitz correction engaged. If you want to experiment with this feature, open up the box and locate the toggle switch in front of the unit at the left side, next to the power LED.

Linkwitz Correction allows for extended bass response by shifting the poles of the sealed enclosure driver down. (Qts and Fc are affected.) Be aware that this will effect the linear excursion in the low end of the spectrum. Do not exceed the Xmax limits of the woofers in use.

### **Active Baffle Correction Trimpotentiometer.**

The active baffle correction trimpotentiometer is located at the inside of the unit. There is a trimpot for each channel. The unit is shipped with those trimpots in neutral. This is the setting that can typically be used for 20-24" wide baffles. (Including the ribbon.) In case one is using a wider baffle or a monopole ribbon implementation, back the setting off.

Test equipment is typically required to perform this accurately.

**Limited Warranty**

Audio-X-Stream warrants the ClearView series of Electronic Crossovers against defects in materials for two full years from the date of original purchase. During this period, Audio-X-Stream will repair the CXR crossover free of charge. To obtain warranty service, ship the unit to Audio-X-Stream after obtaining a RMA number. This warranty is extended to the original purchaser and any succeeding owner for products purchased for ordinary home use in the United States of America. This warranty does not cover damage resulting from accident, misuse, abuse, or acts of God including but not limited to lightning or flooding. Warrantor is not responsible for loss or incidental or consequential damage.

This warranty gives you specific legal rights which may vary from state to state.

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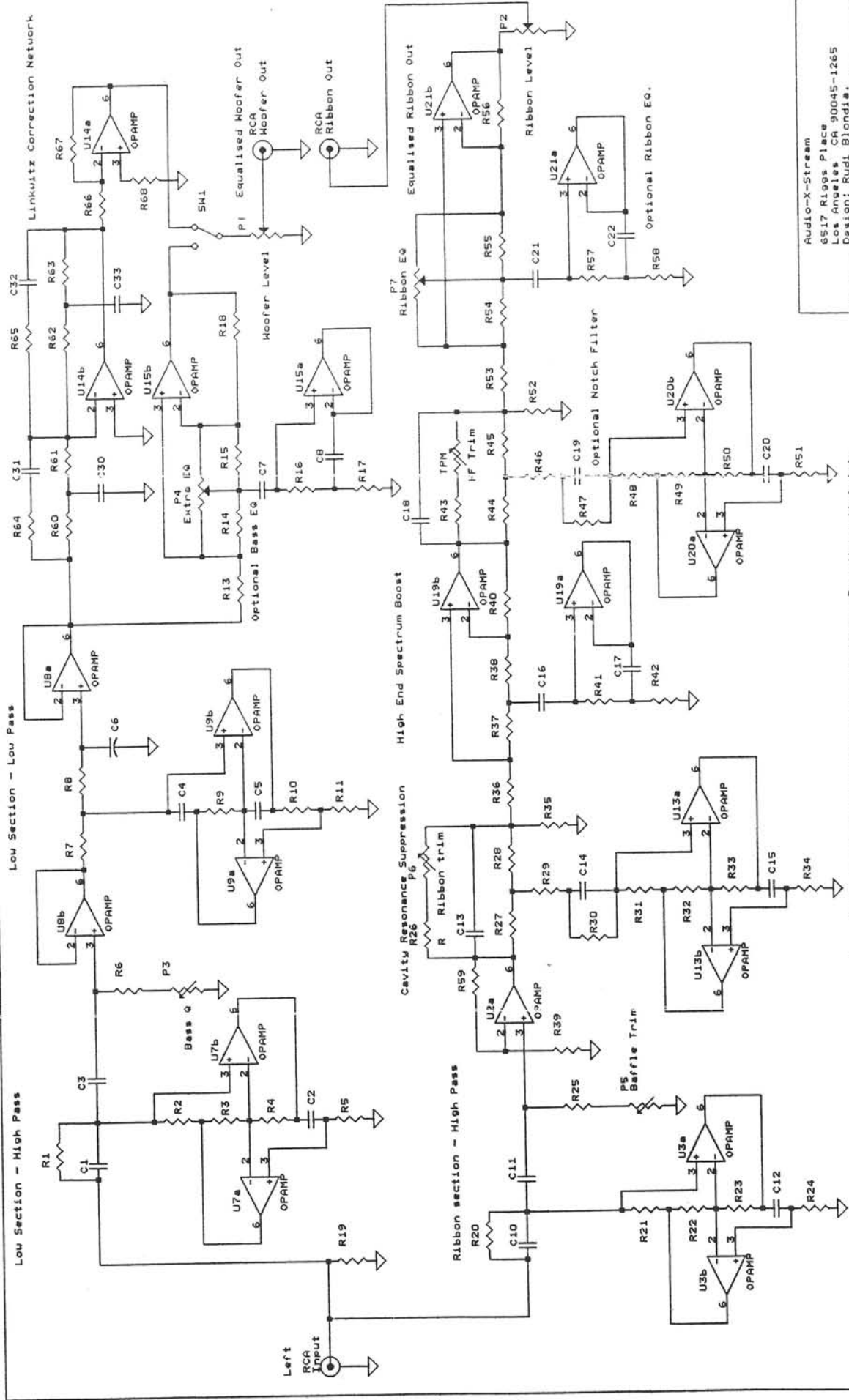
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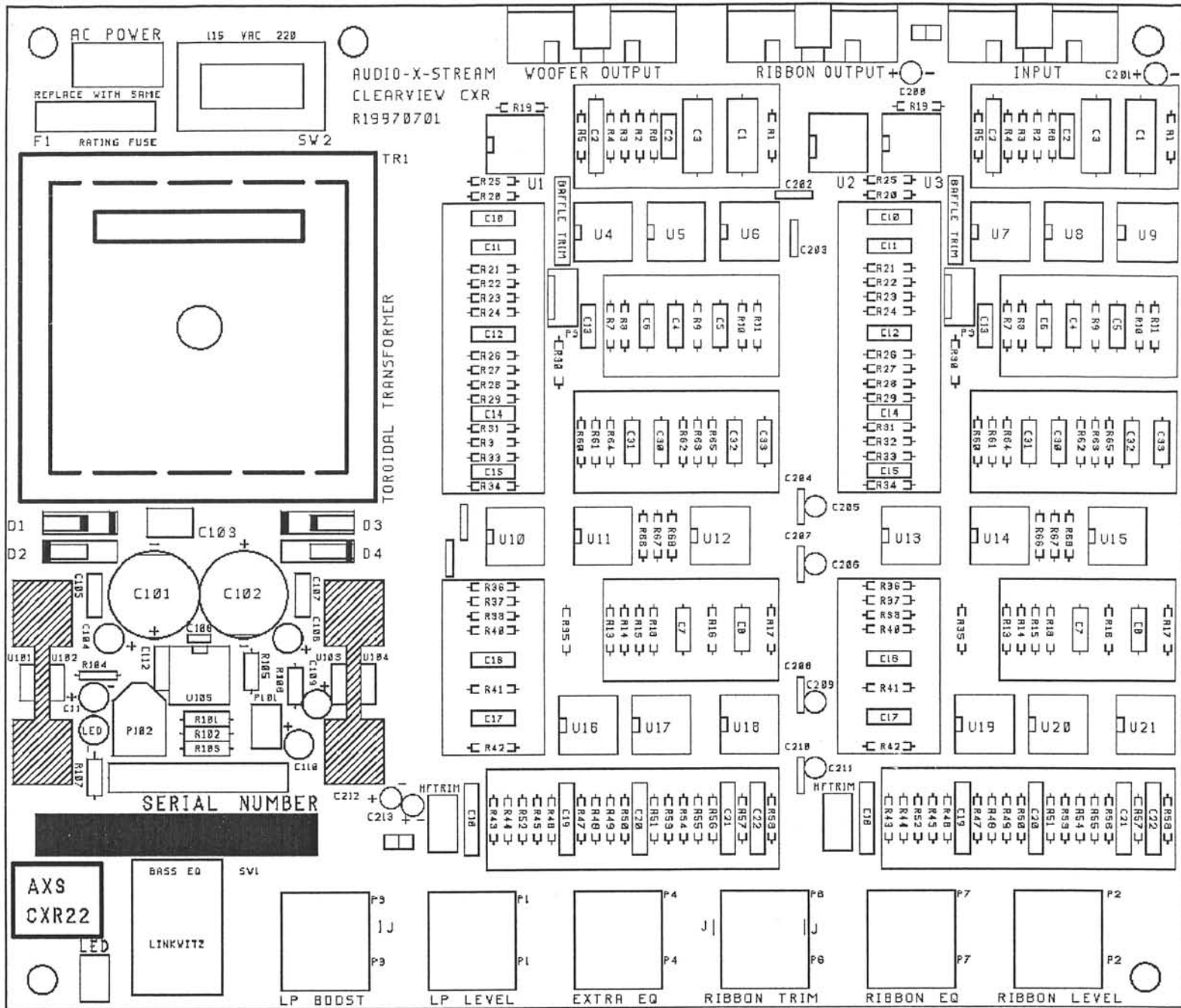
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