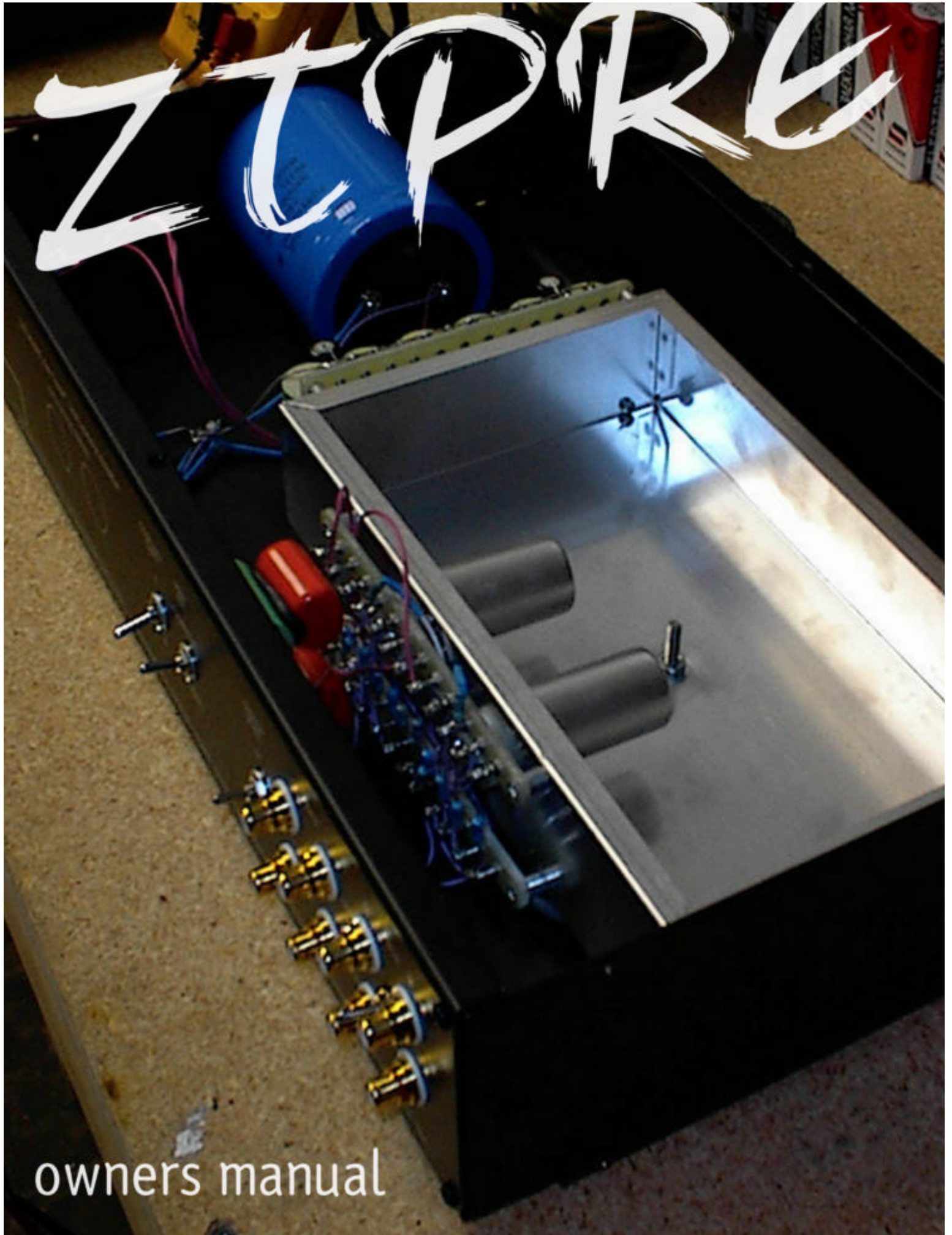


# ZTPRE



owners manual

# ZTPRE OPERATION MANUAL

120 / 240 VOLT PRE PRODUCTION MODELS

(C) 1999 by Steve Deckert

## INTRODUCTION

Thank you for participating in the ownership of our ZTPRE audiophile line level preamplifier. By doing so your feedback will continue to hone this incredible design. You have purchased a pre-production model of what is sure to become a classic world wide. The difference between a pre-production and regular production model is simple. The pre-production models are hand built right down to the chassis drilling. This way we can experiment with subtle changes along the way allowing our product to continually improve. All pre-production units are limited to 100 or less making this unit a very rare limited edition. In time it will bring more than you paid for it.

## ASSEMBLY

Your ZTPRE consists of 4 main parts;

- preamp
- power supply
- interconnect
- power cord.

The main part, the preamp, should be located away from power amps, or anything creating heavy magnetic fields. This would be true for any preamp. The power supply which comes in it's own chassis should be located at least 6 inches away from the preamp. The interconnect with the 4 pin XLR connectors is designed to connect the power supply to the preamp. This 6 foot interconnect will allow plenty of flexibility in locating the power supply, including the option of setting it on the floor. You will notice that the interconnect is directional. Fitted with a female and mail end, the cable can only be installed one way. This was done to keep you from getting shocked since there lots of capacitors storing charge in BOTH the preamp and the remote power supply.

Note: A shorted power supply interconnect will damage both the preamp and the power supply. Fusing the B+ or Heater Supply to prevent this lowers fidelity and is not done. Interconnects can easily be tested with an ohm meter from either end by simply checking to see that none of the pins are shorted to each other.

The power cord, also shipped with you unit should be plugged-in to the remote power supply unit and then to your wall outlet.

**DO NOT USE EXTENSION CORDS** - they invite bad sound. Instead think along the lines of having a good line conditioner or ideally an isolated line transformer to supply your stereo gear with power. To hear what that would sound like, try listening to your stereo at 2:20 AM when there are no harmonics in the power line.

There is a on/off switch on the power supply with an LED indicator lamp to indicate when the unit is ON. There is NO power switch on the preamp because we recommend leaving it on 24 hrs a day, every day. This can actually increase tube life which is projected to be between 3 and 10 years.

Once you have the 4 main parts connected and the volume controls turned off (counter clockwise) you may install your patch cords from your line source and to your amplifier(s).

The tubes are pre-installed and spring retained by metal shields to eliminate any possibility of them coming loose during operation or shipping.

## SET-UP SWITCHES

The ZTPRE has several switches on the back which with the exception of one are all set-up switches designed to be changed during the initial set-up and tweaking of your ZTPRE.

Starting from the left as you're looking at the back, the first switch is changes the output coupling caps from 4uf to 0.47 uf. Both caps are poly and audiophile grade quality. The 4uf cap (Cap A) will have extended bass response and a slower smoother presentation. Some amps will puke during heavy peaks from the excessive dynamic range offered by this cap. The 0.47uf cap (Cap B) excels in speed and accuracy to a point of revealing the many faults of mid fi digital front ends. It's drier presentation is often preferred with Vinyl. *This switch should never be used while your power amp is turned on.*

The next switch is the bias switch. This changes all of the operating voltages of the circuit to effect two distinct sonic signatures, one always being more aggressive than the other. This has no effect on tube life, and only effects the sonic signature so choose the way you like the best. *This switch should never be used while your power amp is turned on.*

The next switch adjusts the output level from high to low. Since amplifiers vary in input sensitivity, preamps must be carefully chosen to match. For example, an amplifier that needed 2 or more volts to come to full power would need a preamp with plenty of gain to that the volume control when half way up represented approximately half of the amplifiers available output.

An amplifier that needed only 1/2 volt to reach full power, when used with the same preamp would already be hard clipping at the volume's half way point. To accommodate for this we tried padding the output of the ZTPRE to work with high power amps, but found it too much of a reduction in fidelity to be acceptable.

To solve this problem, the ZTPRE's output level switch actually changes the circuit from a conventional paralleled single ended triode with the plates driving the output, to a nifty little variation where the cathodes drive the output. In the cathode (or NORM) position, the ZTPRE actually attenuates without compromising the signal path with additional parts. *This switch should never be changed while your power amp is turned on.*

The last switch is an input selector located directly between the input jacks to eliminate wire, and the commonly associated losses of using rotary selectors.

## TUBE MAINTENANCE

Changing the tubes is accomplished by removing the top cover and then removing the cover of the tube housing on the inside. Once removed, the tubes can be replaced with new. **USE ONLY SVETLANA 6N1P TUBES.** Using 6DJ8's requires modifications to the power supply to correct for reduced heater current and is not recommended. The 6N1P is a computer grade tube with an oversize cathode that while often considered a plug in replacement for the popular 6DJ8, has none it's shortcomings like microphonics or noise. We run low voltages on these tubes to ensure many years of trouble free operation and consider this to be the best sounding and highest quality tube available for use in this preamp. Replacement sets are available from most tube suppliers, and of course premium matched pairs are available from us at High Fidelity Engineering Co.

## HELP HOTLINE

If you have questions call us at **(309) 671 2428** between 9 am. & 5 pm. central standard time USA Monday ~ Friday. Ask

**DECWARE™ High Fidelity Engineering Co.**

1202 N.E. Adams Street. Peoria IL 61603 (309) 671 2428