CUSTOM AUDIO ELECTRONICS INC.

3+SE Tube Guitar Preamp

OPERATING GUIDE

10648 Magnolia Blvd. North Hollywood, CA. 91601 Phone (818) 763-8898 Fax (818) 763-8890

Thank you for purchasing the CAE 3+SE Tube Preamp. Being on the cutting edge of assembly and manufacture of custom rigs for many recording artists, we have become the ears of many guitarists in their search for signature tones as well as the sounding board for complaints of other products.

Your preamp was developed to fill what we feel was a gap in the marketplace. An extremely flexible pro guitar tube preamp that has no complicated or confusing controls, does not require or need an external EQ and is made in the USA with the finest parts and technology.

The 3+SE is three independent preamplifiers in one chassis plus an additional active tube post EQ allowing up to 17 db of cut and boost in the punch and presence spectrums, as well as a level trim that can boost output level an additional 8db.

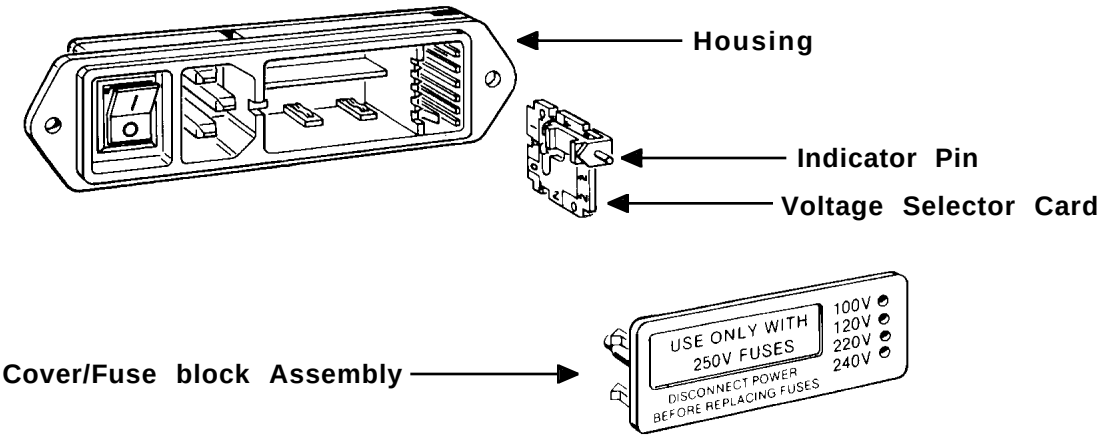
Your preamp requires essentially no maintenance and will provide years of trouble free usage. There are 7 Chinese 12AX7 preamp tubes regulated with DC heaters and powered by a low magnetic stray field Toroid transformer to provide you with consistency and reliability unsurpassed by any other preamp.

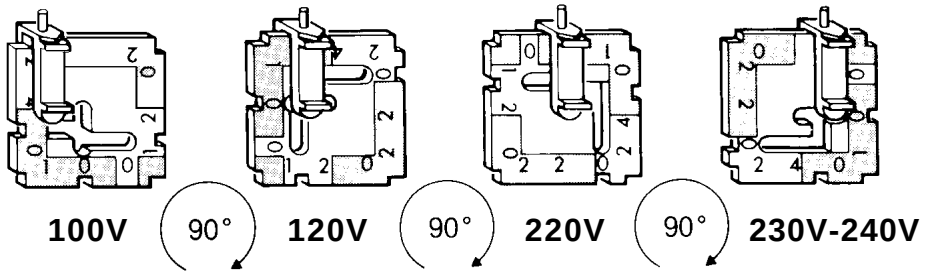
Since a preamp is one of the three key components in your amplification, we urge you to listen to as many power amps and speakers as possible so you may better match the system to your tastes. Not all power amps sound the same! Each one has a character all of its own. Speakers are a critical link also. Since there are many different styles of players, there are many options. We will make recommendations on an individual basis for each client when asked.

To start, set all controls at 12 o'clock. The post EQ section may be kicked in or out as well as the BRIGHT switches on each channel. The post EQ section is also useful to add some depth and presence to a "flat" power amp. The lower the GAIN settings are, the more active the bright switches will be. All channels will respond to volume changes on the guitar and picking sensitivity. All channels are voiced differently from each other both in their gain structure and in frequency. We encourage you to experiment following 2 guidelines:

1. There is usually no reason to run the Master controls on CH2 and CH3 past #6 mark unless you are driving a direct power amp in jack that needs a hotter signal than +4db.

2. When using a switching system besides our optional controller it is possible to turn on CH2 and CH3 at the same time. There will be no sonic benefit since the two channels are out of phase with each other.





Voltage Selection

To change selected voltage: Open cover using small blade screwdriver or similar tool; set aside cover/fuse block assembly; pull voltage selector card straight out of housing, using indicator pin; orient selector card so that desired voltage is readable at bottom; fix indicator pin into notch at opposite side; insert voltage selector card into housing, *printed side of card facing towards on/off switch*, and edge containing the desired voltage first; replace cover, and verify that indicator pin shows the desired voltage. USE PROPER FUSE for voltage selected!

100V	**use**	**1.5 amp slo blow**
120V	**use**	**1.25 amp slow blow**
220V	**use**	**.75 amp slow blow**
230V-240V	**use**	**.75 amp slo blow**

Worldwide Voltage Selector, Fuse Holder and Power Switch

For optional 3+SE Footswitch Controller Only

Switched via on/off switch or contact closure of 25ohm to ground or better, such as Custom Audio Electronics 4x4 or 2x4 Audio Controller, Rocktron/ Bradshaw switching systems, Rocktron Patchmate or Rockman Octopus. When channel 2 or channel 3 are not switched, channel 1 is the default. *Note, even though no harm will be done, since channels 2 and 3 are out of phase with each other, it is not recommended to have them both on at the same time.

Outputs are designed to drive line level equipment. Set effects for +4db or 0db, not -10db or -15db! Output impedance is better than 1K, and is designed to drive a total load of 10K or higher.

The MAIN out should normally be used. The GND.LIFTED out is provided to help solve ground loop problems in complex systems.

The AUX.IN has a 1Meg ohm input impedance. The front panel has priority over the rear panel AUX.IN