

# Yellow Jacket®

## Class-A Tube Adaptors

Yellow Jackets® are specialized adapters which permit the use of EL84/6BQ5 power tubes in place of 6V6, 6L6, EL34, 7027, 6550 (under 520 volts), and 7591 types. They will work in any amplifier that takes these tube types, as long as the plate voltage is under 520 VDC. This accounts for over 98% of the tube guitar amplifiers on the market. (They also work in tube Hi-Fi equipment!)

Because the Yellow Jackets® ignore the amplifier's grid bias voltage, it is possible to take them in and out at will to adjust your power level and sound for the individual gig or session.

### Class-A With Any Amp!

Yellow Jacket® Converters not only rearrange the pin locations of the 9-pin EL84 tube bases to permit them to work in 8-pin sockets, but also perform a number of essential electronic functions that permit the EL84s to function well and sound great in your amplifier. These functions include: 1) Reducing the voltage on the plates of the tubes, 2) Reducing the voltage and limiting the current on the screens of the tubes, 3) Blocking the amplifier's DC bias voltage from reaching the control grids of the EL84s, 4) Giving the control grids of the EL84s their own ground reference resistor for gain control, 5) Giving the EL84 its own cathode-bias (self-bias) circuit to enable it to run safely and squarely in the Class-A range.

In other words, there are no adjustments to make and no modifications necessary. You simply plug the Yellow Jackets® into the amp's output tube sockets, (in cathode-bias amplifiers screw the ground wires under one of the output tube socket mounting screws,) plug the provided EL84s into the Yellow Jackets®, turn the amp on and play. When you remove the Yellow Jackets® and return to your original tubes, the bias voltage in your amp is exactly where you left it, so you do not need to re-bias.

### Like Getting a Whole New Amplifier

In Champ and Deluxe type amplifiers, the Yellow Jackets® output is smooth, strong and more even than with the stock 6V6s. When the Yellow Jacket® Converters are installed

in larger two-tube amplifiers intended for 6L6, 6550, 7027, or EL34 output tubes, the output power drops to about 15 to 20 watts and the amplifier takes on more of the character of an old Vox® AC30. The distortion is smoother and more even and the output is both substantially reduced and more compressed than stock due to the Class-A nature of the Yellow Jackets®. In a 100-watt amp like a Twin

Reverb or Marshall™ 100, either two or four YJSs can be used. If only two are used and the other two (inside or outside) sockets are left empty, the output is dropped to about 20 watts. With four in place, the amp puts out about 40 watts and takes on a whole new warmth and richness. A further option in a 4-tube amplifier is to leave two of the original tubes in place and replace the other two with Yellow Jackets®. This gives a combination of Class-A and Class-AB operation and sounds quite sweet and complex. The pick attack is tight and punchy from the power of the two Class-AB tubes and the sustain is taken over by the Yellow Jackets® operating in Class-A. Try it, you'll like it!

### Replaces the Rare 7591 Tube!

In the case of replacing 7591s, the overall output power remains the same, but the sound becomes fuller, and the extinct 7591s are replaced with common and inexpensive EL84 tubes. In old Ampex™ Reverb Rockets and the like, you experience a warmth and sweetness that you could never get with the now rare 7591 tubes.

### Safe for All Amplifier and Transformers

As all Yellow Jacket® Converters internally limit voltage and current, they put no extra strain on the amplifier's power and output transformers or internal components. Using the Yellow Jackets® in higher-powered amplifiers actually reduces the strain on the transformers and internal components because it reduces the overall wattage of the system. Furthermore, the heater (or filament) current of the EL84 is lower than that of the 6L6, 6550, 7027, EL34 or 7591, so using the Yellow Jackets® will reduce the strain on the filament windings of the power transformer as well.

